

INSIDE DOPE

by GEORGE F. TAUBENECK

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Sound Advice for Sellers
Wisdom of the Week
Women Trouble
Do You Have To Sell, Too?

Stories of the Week

Out of gas. Many miles from the nearest town. After midnight. Luckily the traveling salesman spied a nearby farmhouse.

Pounding loudly, and hullabalooing, he aroused the sleepy farmer.

"Sir, may I have lodging here for the night?"

"Waal, I reckon. But you'll have to sleep with my teen-age son."

"Migawd," croaked the traveling salesman. "I'm in the wrong joke."

To skeptical friends Joe Oberc twinkle-eyed that he and two pals had shot down 99 out of 100 ducks which flew over their dampish blind.

"Why don't you make it a good story," jibed a crony, "and tell us you bagged an even hundred?"

"I should make a liar of myself?" Joe raised his eyebrows innocently, "for one duck?"

Periodically, Mrs. Bob nagged Mr. Bob to nudge his boss for a raise. Time after time the request was turned down for various reasons—chief of which was that Mr. Bob didn't deserve more.

By happenstance Mr. and Mr. Bob met Bosso at church.

Subconsciously, perhaps, Mr. Bob introduced:

"Sir, meet my Bitter Half."

"No, Junior, you can't go outside to play," rasped Mama Kangaroo. "In all that rain you'll get your feet muddy."

Verse of the Week

Oh, the comfort—the inexpressible comfort of feeling safe with a person,

Having neither to weigh thoughts, Nor measure words—but pouring them

All right out—just as they are Chaff and grain together— Certain that a faithful hand will Take and sift them— Keep what is worth keeping— And with the breath of kindness Blow the rest away.

—DINAH MARIA MULOCK CRAIK.

Happy Marriages and Partnerships

Dean Martin and Jerry Lewis were interviewed. Purpose: to learn reasons for their successful partnership.

Quoth Jerry: "We do take trips together, but we never see each other with our wives. When we started in business, Olsen and Johnson (who have been successful together for 30 years) told us: 'Never let your wives get chummy. Women make all the trouble in the world.'"

"One wife might resent the other's minks and diamonds. Another might think the two of us are spending too much time together. So we are playing it safe. We keep 'em apart."

Martin and Lewis are celebrating their ninth year as a team. They comprise a phenomena in "show business." Nobody has topped their records at theater and night club box offices.

Maybe their keep-wives-apart formula should be studied by business partners.

Note to President Eisenhower

Way back in September, 1932, Franklin Roosevelt was campaigning for his first term as President of the United States on a platform of economy—believe it or not.

"If the nation extends its taxing

(Concluded on Page 6, Column 1)

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G-E Expands Home Heating, Cooling To Meet Orders

ELOOMFIELD, N. J.—In a move to expand production facilities and meet increasing demand for home air conditioning, General Electric Co. has announced that part of its home heating and cooling department will be transferred from here to Trenton, N. J.

F. J. Van Poppelen, general manager of the G-E Air Conditioning Div., said that the move to Trenton will also allow the division to utilize facilities vacated here for increased production of packaged air conditioning units, water coolers for commercial and industrial use, and the new G-E packaged heat pump.

"Orders received to date for air conditioning equipment are running far ahead of the corresponding period of any previous year," he said, adding that he expected the demand for air conditioning to keep on rising.

The part of the home heating and cooling department which will move (Concluded on Page 21, Column 3)

Detroit Renews Curbs On Water for Cooling

DETROIT—Restrictions on summer operation of comfort air conditioning systems using non-recirculated city water were renewed last week by the city's Board of Water Commissioners.

At the same time, the board renewed curbs on lawn sprinkling. The regulation pertaining to air conditioning is the same as that in effect last summer but the lawn-sprinkling rules have been relaxed. The restrictions were imposed last year because record water demand was overtaxing supply facilities.

The rule regarding air conditioning states:

"Mechanical refrigeration systems used for cooling purposes for human comfort, and using city water, not recirculated, shall be limited to an average space temperature of not less than 80° F. dry bulb when the (Concluded on Back Page, Column 4)

Franchised Appliance Dealers Await T-H Ruling

WASHINGTON, D. C.—Appliance retailers are anxiously awaiting the forthcoming ruling of the U. S. Supreme Court as to whether or not franchised dealers are subject to the Taft-Hartley Act.

The National Labor Relations Board has ruled that the act covers franchised automobile dealers even though all their sales are made in one state. This ruling was later upheld by the Ninth Circuit Court of Appeals. The Supreme Court is now reviewing the lower court's decision.

NARDA Meeting Set for June 28

CHICAGO—The National Appliance & Radio-TV Dealers Association has announced that its mid-year meeting will be held June 28-30 at the Conrad Hilton hotel here.

Programmed for the meeting are group discussions on Sunday, June 28; talks on selling and appliance merchandising on Monday; and management and television sessions on Tuesday.

Three separate discussion groups will form Sunday, starting at 2:30 p.m. Topics scheduled for discussion are television service, manpower and salespower problems, and distributor, manufacturer, and government relations. A reception will follow in the evening.

Monday's activities will get under way with a 7:30 a.m. breakfast session. (Concluded on Back Page, Column 5)

June 15 'Newsweek' Article Features Air Conditioning

NEW YORK CITY—With a front cover banner headline "Your Climatized Home Is Here," another national magazine, *Newsweek*, is playing up the air conditioning industry in a "special report" in its June 15 issue.

In a double-page spread, the magazine compares present production estimates with past history and predictions for the future, placing special emphasis on the residential field.

Here the article gives 1953 production goals (which "may vary," it says, "depending on continued consumer demand and material supplies") of 1,380,000 room units and 86,000 "home systems."

Featured is a breakdown of how many units individual manufacturers have established as their 1953 production goals.

(Concluded on Back Page, Column 2)

'Newsweek' Estimate of '53 Room Cooler Output

Fedders-Quigan	345,000
Mitchell	225,000
York	150,000
Sutton	120,000
Carrier	115,000
Frigidaire	100,000
Servel*	60,000
International Harvester	40,000
Chrysler	35,000
G-E	30,000
Loneran	30,000
Quiet-Heat	20,000
Remington	20,000
Bryant	20,000
Crosley	20,000
Others	50,000
Total	1,380,000

*"Industry estimate."

ASHVE Programs Heat Pump Talks At Denver Meeting

DENVER—Three papers on the heat pump will be included in the four technical sessions scheduled for the semi-annual meeting of the American Society of Heating and Ventilating Engineers to be held at the Shirley-Savoy hotel here June 29 to July 1.

Other papers will discuss such varied topics as cooling tower performance, physiological reactions of people to environment, noise in piping systems, thermal performance of frame walls and plaster panels, and panel heating and cooling.

Several entertainment features have been planned, including a Gold Rush party, a mountain tour and western-style supper, a dinner dance, golf tournament, and special events for the ladies.

Committee meetings will be held (Concluded on Back Page, Column 2)

Kelvinator Freezer Adds Storage Space

DETROIT—Stepped up storage capacity and eye appeal are featured in a new 7-cu. ft. model Kelvinator has announced as an addition to its chest-type freezer line.

Model FR-7D offers 7 cu. ft. of storage space in a cabinet of essentially the same exterior dimensions as former 6-ft. models, according to Fred J. Worden, manager of freezer sales. This added capacity results from use of the space-saving wrapper-type condenser pioneered by Kelvinator in 1946 and new high density insulation, it was pointed out.

Other features, Worden said, include a new lock-type latch with key; interior trim highlights of colonial blue; rear-mounted spring-action hinges that act as a counter-balance to offset lid weight, making lifting easier; and a "Polariscope" compressor unit of new internally spring- (Concluded on Page 21, Column 2)

18 Air Conditioned Homes Sold by St. Louis Builders In 'Weathermaker Week'

ST. LOUIS—Promotion of residential air conditioning through six home builders in a "Carrier Weathermaker" week put on by Carrier sales outlets here resulted in the sale of 18 air conditioned homes by the six builders.

In promotions of this kind it is the usual procedure to work with one builder, but Carrier decided to try it on more of a "mass" basis. The six builders, although they are highly competitive in their own field, all tied in with the "Weathermaker Week" and used the same promotion materials.

NEMA Sales of Refrigerators Hit High Mark

March Sales of 428,048 Units 43% Above '52; Foreign Shipments Up

NEW YORK CITY—Highest refrigerator sales since April, 1951 were reported for March by the 18 manufacturers sending figures to the National Electrical Manufacturers Association.

Sales for the month of March totaled 428,048 units, which is 13% better than in February and 43% better than March of last year.

Greatly improved sales in Canada and other foreign countries helped considerably in registering the high gains, even though their numbers in comparison with domestic sales are small.

Canadian sales of 17,042 units were 68% higher than in February and 401% higher than in March, 1951. Sales to other foreign countries, numbering 42,510 units, were 169% higher than in February and 139% higher than in March, 1951.

(Concluded on Page 4, Column 4)

Philco Shows New Lines; 7,500 Dealers Hear Expansion Plans

ATLANTIC CITY, N. J.—In a midsummer convention to which it brought over 7,500 distributors and dealers, Philco Corp. introduced new radio and TV lines, and a new design of a 30-in. electric range, and also told the dealers of moves that are expanding its production in the refrigerator and home freezer field.

William Balderston, Philco president, told the convention that new plant facilities in Connorsville, Ind. now going into operation will permit increases in household refrigerator production up to 50%, and increases in home freezer production up to 100%. He also said that the new Philco refrigeration compressor plant in Bedford, Ind. is now in operation and producing a part of the firm's requirements.

Balderston sounded an optimistic note, declaring that Philco sales thus far are running ahead of goals set up for 1953, which are greater than the 1952 goals, the biggest year in Philco's history. His optimism was borne out when at the close of the sessions James H. Carmine, executive vice president, announced that the firm took more orders for radios at the convention than any other convention in the past five years, and took orders for twice as many TV sets as it did in 1952.

(Concluded on Page 21, Column 4)

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Four Appliance Manufacturers Launch Heavy Summer Selling Campaigns

Deepfreeze ...

NORTH CHICAGO, Ill.—Deepfreeze is now conducting the heaviest summer advertising drive in its history, according to R. A. Gilruth, advertising manager.

In a bulletin sent to the Deepfreeze sales staff, Gilruth estimated that more than 85,000,000 selling messages for appliances made by Deepfreeze would hit the buying public this month.

(Concluded on Page 4, Column 3)

Frigidaire ...

DAYTON—Frigidaire is launching a midsummer appliance sales campaign described as one of the most powerful since prewar days, H. J. Miller, appliance sales manager, declared here recently.

Miller pointed out that a preliminary test of national markets, conducted by the company during a "Frigidaire Week" sales campaign in May, has proved that "business will (Concluded on Page 4, Column 3)

Hotpoint ...

CHICAGO—Targeted to move some \$80,000,000 of appliances to consumer homes during the summer months, the biggest 60-day consumer promotion in Hotpoint history will get under way June 1.

Top consumer magazines, radio, and television shows will be used to push the nationwide selling activity "Summer Shower of Special Values" and to draw consumer attention to (Concluded on Page 4, Column 2)

Servel ...

EVANSVILLE, Ind.—"Proof of Superiority in Your Own Home" of its 1953 refrigerators is the theme of a nationwide "one dollar does it" sales campaign now being launched by Servel, Inc.

In announcing the plan, W. Paul Jones, president of the firm, said the automatic "Ice-Maker" refrigerator, introduced this year, would be featured in the offer.

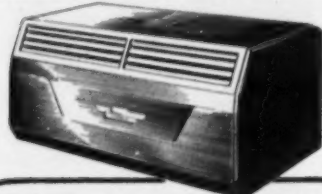
(Concluded on Page 4, Column 1)

Texas Appliance Dealers Form State Association

HOUSTON, Texas—The Texas Appliance Dealers Association was formed during the Texas State Sales Clinic held recently at the Shamrock hotel here.

The following officers were elected: Stanley Blount of Houston, president; Sam Hagy of Dallas, vice president; Vergal Bourland of Ft. Worth, vice president; C. L. MacNeal of San Antonio, secretary; and Glenn Flinn of Tyler, treasurer.

Temporary headquarters are located at 635 West Bldg., Houston. Permanent offices will be in Austin as soon as a managing director can be appointed.



NEW '53 USAIRCO WINDOW TYPE ROOM AIR CONDITIONER

- ✓ Thermostatic Control At No Extra Cost!
- ✓ 5 Year Warranty and Labor Allowance!
- ✓ 3 Sizes: 1/2 h.p., 3/4 h.p., 1 h.p.
- ✓ Smart, Compact Cabinet!
- ✓ Adjustable Louvers!

For details write Dept. AC 653

UNITED STATES AIR CONDITIONING CORPORATION
MINNEAPOLIS 14, MINNESOTA



T. A. BYRNES



G. J. DUERR

Imperial Brass Names Byrnes, Duerr To Head Regional Sales Divisions

CHICAGO—The Imperial Brass Mfg. Co. here has announced the appointment of Thomas A. Byrnes to the newly-created position of sales manager—eastern division, and the appointment of Gordon J. Duerr to the newly-created position of sales manager—western and midwestern division.

Byrnes, who has been with Imperial since 1922, has been representing the company in the New York-New Jersey-eastern Pennsylvania area for many years.

Duerr, with Imperial since 1936, has previously been western sales manager.

Bell Opens 3rd Store

KANSAS CITY, Mo. — The third and largest of the Albert Bell appliance stores held its grand opening recently at 4627 Troost Ave. Other Bell units are at 726 Minnesota Ave., Kansas City, Kan., and 3200 Troost.

20,000 Salesmen Trained In Westinghouse Program

MANSFIELD, Ohio — Twenty thousand retail salesmen have been trained on the company's full line of major appliances and made eligible for Operation Bing Bong, it was reported recently by R. J. Sargent, major appliance manager for the Westinghouse Electric Appliance Div.

The training program for 1953 was divided into two parts, Sargent explained. First phase was a series of one-day retail sales clinics held in 471 cities across the country in which retail salesmen were fully trained to give a four point sales story on each Westinghouse major appliance.

In the second phase, Westinghouse invested \$150,000 in a nationwide telephone check-up, called Operation Bing Bong, to find out how well the retail salesmen had learned the sales stories at these clinics. Of the 20,000 retail salesmen trained at the one-day clinics, over 8,000 have been called by telephone and asked for the four point story.

Good sales stories paid off in cash prizes ranging from \$5 to \$50 depending upon whether the call was made from a distributor, branch or district office or appliance division headquarters.

Highlight of the program is the week of June 15 when Westinghouse top sales executives will place calls in search of 32 grand prize winners. These winners will receive an all-expense trip to the Electric Appliance Div. headquarters in Mansfield. Distributor salesmen who trained them will also receive the trip to Mansfield.

G-E Announces Winners Of Distributor Contest

LOUISVILLE, Ky.—Top honors in the two-section "Bluegrass Special"—a January-March contest for General Electric major appliance distributors based on their purchases from the major appliance division—were won by distributors in San Antonio, Texas, and Louisville.

General Electric Supply Co. of San Antonio finished on top in the first section with an over-all quota realization of 214.4% for the full line of appliances.

General Electric Supply Co. of Louisville won in the second section with a 188.1% realization of quota.

Running second in the first section with a 210% rating was the General Electric Supply Co. of Lubbock, Texas, with General Electric Supply Co. of Houston, Texas, in third place with 200% realization.

Second place in the second section was taken by Electric Supply Co. of Albuquerque, N. M., with a 162.3% realization, and General Electric Supply Co. of Omaha was third with a 152.9% total.

The contest developed from the use of two appliance trains, each designated the Bluegrass Special, which were used last fall to introduce the 1953 line of major appliances to distributors.

For contest purposes, distributors were divided into two sections corresponding to the area covered by each train. To equalize the sections, distributors attending the special preview held in Louisville were assigned to the second section.

Prizes were plaques with saddle leather backgrounds. Each plaque had a lightweight thoroughbred racing horseshoe mounted on it.

10,000 See Air Conditioned All-Gas Home In Columbus

COLUMBUS, Ohio—A new all-gas home, featuring the Servel "Finger-tip" air conditioner, drew 10,000 visitors here in a single day. Besides the air conditioning, gas refrigeration, heat, and dryers were spotlighted.

Sponsored by the builder, Homer W. Friend, and the Ohio Fuel Gas Co., the showing started at 1 p.m. on a Sunday and lasted until 9 p.m. It also was open during the following week, and an additional 10,000 persons went through.

The event of the open house was promoted through several small newspaper advertisements and one large ad on the day before the opening. There also were spot announcements on radio and television, plus wide coverage editorially by the three daily newspapers.

Local dealers offered appliances and furnishings for the home, and had each visitor fill out a card for prizes. The list of cards was later used for prospective customers.

Called the "Skyhouse," the home derived its name from skylights built into the roof. An open-to-nature design, it literally brought the outdoors inside.

Whirlpool Sues Union for Day's Lost Production

ST. JOSEPH, Mich.—Because 2,000 of its employees took an unauthorized extra day off prior to the Memorial Day weekend, Whirlpool Corp. here has filed a \$650,000 damage suit against the United Electrical, Radio & Machine Workers Union, charging that the union violated its contract.

Company officials asserted that on Friday, May 29, the union called its members off the job and demanded holiday pay. They said their contract with the union calls for six paid holidays, all falling on normal workdays. As Memorial Day fell on Saturday, not a normal work day at Whirlpool, the company does not consider it a paid holiday.

In its suit, Whirlpool declared that 2,000 employees failed to report to work on that Friday, causing a 90% loss of production. The company also complained that it lost goodwill because of failure to make deliveries that day.

The company asked for a jury trial, which cannot be held in Federal Court before next September.

Redisco Sues Dealer To Recover \$41,653

LOS ANGELES—A \$41,653 breach of contract suit has been filed in Superior Court here against Burk's household appliance stores and their three principals by the Refrigeration Discount Corp.

Redisco charges that Henry Feldman, James L. Pritchard, and Leo Adler, the responsible principals, have refused to repurchase delinquent time payment contracts worth \$41,653 as previously agreed.

The contracts were sold to Redisco by Burks between June 1, 1950 and Jan. 1, 1952, with recourse, the suit says. The defendants agreed to guarantee the contracts and to repurchase them if they became 45 days overdue, Redisco asserts. But when the payments were defaulted sometime after April 2, and Redisco demanded payment, the defendants refused to pay, the finance company charged. It now asks a court judgment for the \$41,653.

Gibson Appoints Briece Kansas City Area Dist.

GREENVILLE, Mich.—F. L. Sacha, manager of Gibson sales, Gibson Refrigerator Co., announces the appointment of Briece Distributing Co., Kansas City, Mo., as distributor for that area.

William E. Briece, president of the distributing company, will launch a new traffic-making retail campaign within the near future, Sacha said. The campaign, developed by Briece, Ed Mater, Gibson divisional sales manager, and Gregory V. Drumm, Gibson advertising and sales promotion manager, will combine advertising, sales promotion, sales training, and sales incentives into one retail sales event.

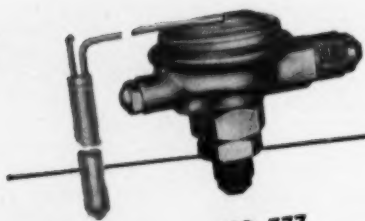
Simplify Buying and Inventory

DEAL with DETROIT

and take advantage

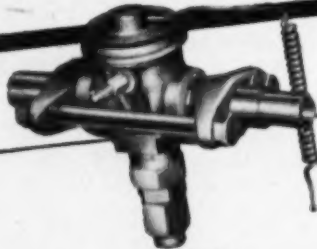
of ONE convenient source

for EVERY expansion valve need!



NO. 777

- Adjustable superheat
- Available with C, Z, or standard liquid charge
- Capacities—1/2 to 2 tons Freon-12
- Stainless steel and brass throughout
- Easy superheat adjustment
- Anchored capillary
- Interchangeable inlets 1/4 and 3/8 S.A.E.
- Cartridge assembly simplifies cleaning
- Available with equalizer connection



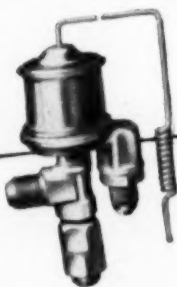
NOS. 786, 787, 788

- Adjustable superheat
- Gas charged for air conditioning applications
- Liquid "Z" charge for low temperature use (786 and 787)
- In-line connections
- Capacities 2 to 25 tons Freon-12
- Capacity easily changed on the job
- External equalizer connection



No. 673

- Adjustable superheat
- Stainless steel needle and seat
- Gas charged for motor overload protection and quick response
- Duroflex bellows resist corrosion and insure long, trouble-free service
- Monel inlet strainer
- Hermetically sealed joints
- 3/8 S.A.E. inlet, 1/4 F.P.T. and 1/2 S.A.E. outlet
- Capacities—1.2 to 3.6 tons Freon-12



No. 573

- Adjustable superheat
- Gas charged for motor overload protection
- Stainless steel needle and seat
- Hermetically sealed joints
- Monel inlet strainer
- Forged brass body
- 1/4 or 3/8 S.A.E. inlet, 1/4 F.P.T. or 1/2 S.A.E. outlet
- Capacities—1/2 and 1 ton Freon-12



ESTABLISHED AS DETROIT LUBRICATOR COMPANY IN 1877

DETROIT Controls CORPORATION

5900 TRUMBULL AVE. • DETROIT 8, MICHIGAN

Division of AMERICAN REFRIGERATOR & STANDARD SANITARY CORPORATION

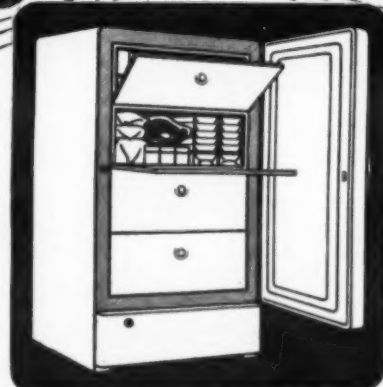
Representatives in Principal Cities • Canadian Representatives in Montreal, Toronto, Winnipeg • Railway & Engineering Specialists, Ltd. • Export Dept. — Box 218 Ridgefield, N. J.

AUTOMATIC CONTROLS for REFRIGERATION • AIR CONDITIONING • DOMESTIC HEATING • AVIATION
TRANSPORTATION • HOME APPLIANCES • INDUSTRIAL USES

Serving home and industry — AMERICAN STANDARD • AMERICAN BLOWER • CHURCH SEATS & WALL TILE • DETROIT CONTROLS • Kewanee Boilers • ROSS HEATER

LOOK 1 YEAR • 5 YEARS 10 YEARS AHEAD

— and you'll buy VICTOR today!



- Model VUQ-18
- 18 cu. ft. Upright
- The ultimate in Freezer compactness
- Many exclusive selling features
- Cost slightly less without Inner Lids



... Send for details of this Victor Upright

Quickfreezer and other items in the

Victor line that mean More Sales

... More Profitable Sales for You



VICTOR PRODUCTS CORPORATION
HAGERSTOWN, MARYLAND
MANUFACTURERS OF THE FAMOUS VICTOR QUICKFREEZERS

Room Cooler Mfrs. Told To Make Their Advertising Simple, Clear, Specific

HIGHLAND PARK, Ill.—Some tips on "How To Get More Out of Your Advertising Dollar" were offered by John Caples, vice president of Batten, Barton, Durstine & Osborn, at a meeting held here recently by the Room Air Conditioning Section of the Air Conditioning & Refrigeration Institute.

In analyzing a number of advertisements, including several promoting room air conditioners, Caples made these suggestions, among others:

"Beware the clever headline. Simple headlines usually win with the public."

"If you've got an exclusive advantage, get it in the headline."

"If you've got a real bargain, put it in the headline—and be specific if possible."

Showing two different ads promoting the same air conditioner, Caples said one resulted in three times as many telephone calls as the other because it was specific. Comparing another pair of air conditioner ads, he noted that one drew five times as many calls as the other because a product benefit was "right in the headline and in clear and simple terms."

Caples then commented on several air conditioner ads taken recently from newspapers.

One featured the phrase "Takes No Space" in large letters. "What takes no space?" is the natural question of the reader to this unspecific headline, Caples observed. This "tricky type of ad" didn't have a real strong message in the head but in small print, he pointed out.

Caples showed two other ads which, he indicated, had weak headlines. One bore the caption "Just In Time for Hot Weather." Under it was a drawing of freight cars with the words "Carload Special" across them.

The headline of the other ad declared that "In New York alone over 300,000 satisfied users know (the manufacturer's trade name)." The trade name was then repeated in big letters.

Caples remarked that in both cases, the reader doesn't know the advertiser is selling room air condi-

tioners until, and if, he gets down into the main copy.

Referring to another ad, Caples said this played up "air conditioning" but that the phrase was in hard-to-read type. He termed still another ad headed "Hot News About Cool Comfort" as "not bad and pretty clear." But, he added, "I don't like clever headlines."

Caples noted here that sometimes artists get too many icicles on the word "cool," making it hard to read. At times, they also "get too clever for effective, clear lettering," he said, stressing that hard-to-read script should not be used.

Other ads were commended for effectively dramatizing the benefits of air conditioning. One of these featured a "before-and-after" layout in which a perspiring, unhappy man is transformed into a cool, smiling person by an air conditioner.

To test advertisements, Caples said, advertisers can use split-run advertising, key ads, and offer a booklet with or without a keyed coupon.

Some of the other points made by Caples were that the advertiser should talk about what his product will do for the reader, not about himself; that a well-known manufacturer's name in a headline will increase the pulling power of an ad; and that when pictures are used, use one that will get the attention of the right audience.

Pyle-National Buys Equipment To Make Electrical Fittings

CHICAGO—Pyle-National Co. here has acquired all tools, dies, molds, machinery, and equipment of M. B. Austin Co., Northbrook, Ill., necessary to make a complete line of electric service entrance fittings, H. V. Engh, president of Pyle-National, announced recently.

With the acquisition of this Austin Co. equipment, Pyle-National, manufacturer of electrical and air conditioning equipment for railroads and industry, will add electric service entrance fittings to its present extensive line of wiring and lighting products, Engh said.

Refrigeration Equipment Wholesalers' April Sales Rise 24% Above 1952

WASHINGTON, D. C.—April sales of refrigeration equipment and parts wholesalers rose 24% above a year ago and 13% over March, according to the Bureau of the Census.

Sales in April of electrical appliance and specialty wholesalers gained 22% compared with April, 1952, but fell off 15% from March, the bureau reported.

Compared with the like period of last year, sales of refrigeration equipment and parts wholesalers for the first four months of 1953 were up 11% and those of wholesalers of electrical appliances and specialties increased 21%. The latter group, along with metals wholesalers, enjoyed the largest gains in the wholesale field for this period.

Inventories of refrigeration equipment and parts wholesalers at the end of April were down 1% from April 30, 1952, and up the same amount from the end of March. Those of appliance and specialty wholesalers were 12% above a year ago and 5% more than they had been on March 31.

Total April sales of all wholesalers reporting to the bureau dropped 3% below the previous month but showed a 7% increase over April, 1952. Sales for the first four months of 1953 were 6% higher than in the like year-ago period. Inventories as of April 30 were up 1% over stocks on hand a month earlier, as well as a year ago, according to the bureau.

Equipment, Appliance, Specialty Wholesalers' Sales and Inventories for April

	Sales				April 1953 Panel
	Per Cent Change		4 Mos.		
	—Apr. 1953—		1953	No. of	Report-
	from		from	Firms	Dollar
Kind of Business and	April	March	4 Mos.	Report-	Values
Geographic Division	1952	1953	1952	ing	(add 000)
Appliances and specialties wholesalers	+22	-15	+21	120	22,830
New England	+29	-20	+29	14	1,911
Middle Atlantic	+31	-12	+19	23	8,729
East North Central	+28	-17	+25	16	2,342
West North Central	+37	-21	+30	13	1,526
South Atlantic	+18	-10	+20	24	3,445
South Central	+17	-20	+18	11	1,630
Mountain	+4	-19	+14	7	1,063
Pacific	-3	-14	+24	12	2,184
Refrigeration equipment, parts (com'l)	+24	+13	+11	65	2,121
Middle Atlantic	+20	+8	+5	14	719
East North Central	+15	+15	+9	16	205
West North Central	+47	+42	+19	5	166
South Atlantic	+27	+11	+18	23	634
South Central	+30	+26	+11	4	256

Inventory, End-of-Month (At Cost)

Kind of Business and Geographic Division	Per Cent Change		April 1953 Panel	
	—Apr. 1953—		No. of Firms Reporting	Reporting Dollar Values (Add 000)
	April 1952	March 1953		
Appliances and specialties wholesalers	+12	+ 5	96	30,583
New England	+12	- 7	11	2,163
Middle Atlantic	-10	+ 3	18	7,663
East North Central	+ 7	- 8	12	3,420
West North Central	+10	+11	12	2,903
South Atlantic	+25	+ 8	19	5,483
South Central	+30	+19	9	3,608
Mountain	+34	+ 8	7	2,509
Pacific	+33	+12	8	2,834
Refrigeration equipment, parts (com'l)	- 1	+ 1	56	4,080
Middle Atlantic	- 2	+ 4	12	1,244
East North Central	+ 8	+ 5	11	479
West North Central	- 9	- 2	5	409
South Atlantic	+ 8	- 3	23	1,500
South Central	*	*	*	*

* Insufficient data to show separately.

SELL WESTINGHOUSE WITH THIS DOUBLE-BARRELLED SUPPORT

NATIONAL ADVERTISING

Westinghouse gives its Distributors stronger-than-ever advertising support. Hard-selling coverage in all fields. Every ad directs prospects to Distributors through the Yellow Page listings.

FULL-COLOR PROMOTION

The new Westinghouse Sales Aids are the strongest in the industry. Full-color literature, powerful direct mail, proposal forms, decals, job signs, and display materials.

You will profit as a franchised Westinghouse Distributor. A few territories are still open. Contact Westinghouse Electric Corporation, Air Conditioning Division, Hyde Park 36, Massachusetts.

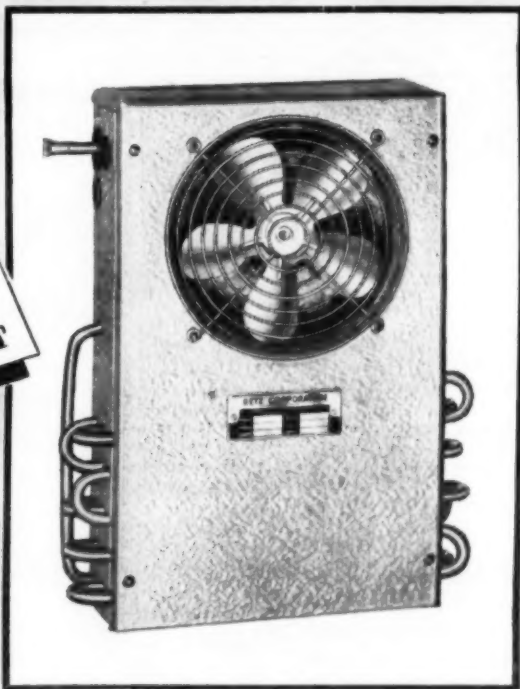
YOU CAN BE SURE...IF IT'S **Westinghouse**
AIR CONDITIONING

BETZ MODEL BB

FOR
BACK-BARS
BEVERAGE
BOXES
ETC.

QUALITY
AT
LOW COST

ONLY
20"
HIGH



MODEL NO.	BTU'S @ 1° T.D.	C.F.M.	COIL SURFACE	LIST PRICE
A-115-BB	115	175	34.8 Sq. Ft.	\$75.00
A-160-BB	160	250	49.9 Sq. Ft.	\$86.00

SEE THEM AT YOUR WHOLESALERS

BETZ CORPORATION
HAMMOND ★ INDIANA

Summer Sales Drives of Appliance Mfrs. Get Under Way--

Servel—

(Concluded from Page 1, Column 5)

The campaign, backed by an extensive advertising schedule in newspapers and trade publications and on billboards, radio, and television, offers a 10-day trial "in your own kitchen" of any 1953 Servel refrigerator in return for a deposit of only one dollar. At the end of that time, if the householder decides not to keep the refrigerator, it will be removed by the dealer without charge.

In addition to the advertising campaign, many promotional aids have been made available to Servel dealers for use in this two-month sales campaign. They include demonstra-

tion charts, unusual lapel buttons, envelope enclosures, broadsides, giant post cards, door hangers, reply card mailers, window and wall banners, and an action flip book.

The Servel automatic "Ice-Maker" was introduced as the first household refrigerator that freezes ice cubes automatically and without trays.

Hotpoint—

(Concluded from Page 1, Column 4) the appliance specialists that will be featured across the country.

Hotpoint is preparing a national advertising program to back up the promotion for retailers.

Hotpoint's Ozzie & Harriet radio and TV shows will be used to add impetus to the promotion. Radio shows on June 5, 19 and July 3 and TV shows on June 12 and 16 will give the Summer Showers of Special Values a boost for additional sales.

Deepfreeze—

(Concluded from Page 1, Column 2)

He broke this figure down, on a basis of pass-along magazine readership and family listening and viewing audiences, as follows:

Garry Moore's CBS television show sponsored on Thursdays by Deepfreeze, 17,000,000; Gabriel Heatter's MBS newscast, sponsored on Thursdays by Deepfreeze, 36,000,000; national magazine advertisements appearing in the *Saturday Evening Post*, *Better Homes & Gardens*, *Capper's Farmer, Farm & Ranch*, and *Progressive Farmer*, 32,000,000.

Frigidaire—

(Concluded from Page 1, Column 3) respond to aggressive sales activity."

During the one week test sales campaign the company piled up the biggest single sales week in history by selling over 24 million dollars worth of home appliances, commercial refrigeration products, and air conditioning equipment. Another record was broken when more than 9½ million dollars worth of products were sold in a single day.

"We are convinced there is plenty of business for those who will go after it," Miller emphasized.

Miller stated that the sales campaign now being launched is designed to: (1) build store traffic for Frigidaire dealers; (2) sell additional products to present Frigidaire users; and (3) secure more aggressive selling activity on the part of retail salesmen.

The sales campaign features the celebration of the 16 millionth Frigidaire refrigerating unit built and sold by the company. Dealers will display special "16 millionth" Frigidaires and the stores will be decorated with an impressive array of store banners and window posters.

To help dealers build store traffic, Frigidaire is making available the "biggest orchid bouquet ever presented to American homemakers." Baby orchid blooms are being flown direct from Hawaii to dealers throughout the United States, affording 24-hour delivery for dealers located anywhere in the country.

March NEMA Refrigerator Sales Total 428,048; 1,152,700 Sold In First 3 Mos. of '53

Summary for March and First Three Months, 1953
Complete Refrigerators Only—Sales by Sizes—Units

MARCH (18 Companies)				
Sizes	Domestic (48 States and D. C.)	Canadian	Other Foreign	Total
1. Less than 4 cu. ft.
2. 4 cu. ft.	2,038	2	218	2,258
3. 5 cu. ft.	169	5	9	183
4. 6 cu. ft.	9,803	6	2,818	12,627
5. 7 cu. ft.	58,526	3,333	4,060	65,919
6. 8 cu. ft.	51,034	4,264	5,388	60,686
7. 9 cu. ft.	108,882	3,420	16,816	129,118
8. 10 cu. ft.	40,246	4,480	3,505	48,231
9. 11 cu. ft.	72,597	1,032	9,024	82,653
10. 12, 13 cu. ft. and up ..	25,201	500	672	26,373
11. Total	368,496	17,042	42,510	428,048
Refrigerators having two exterior doors (All sizes) (Included in above)	55,922	405	8,235	64,562

FIRST THREE MONTHS (18-17 Companies)

Sizes	Domestic (48 States and D. C.)	Canadian	Other Foreign	Total
1. Less than 4 cu. ft.
2. 4 cu. ft.	5,353	4	395	5,752
3. 5 cu. ft.	252	14	50	316
4. 6 cu. ft.	43,440	8	7,595	51,043
5. 7 cu. ft.	149,976	8,473	9,630	168,079
6. 8 cu. ft.	151,449	6,450	10,209	168,108
7. 9 cu. ft.	267,641	7,568	22,531	297,740
8. 10 cu. ft.	184,318	9,711	7,165	201,194
9. 11 cu. ft.	181,786	3,189	11,843	196,818
10. 12, 13 cu. ft. and up ..	61,163	791	1,696	63,650
11. Total	1,045,378	36,208	71,114	1,152,700
Refrigerators having two exterior doors (All sizes) (Included in above)	126,091	444	9,139	135,674

Participating companies: Admiral Corp.; Bendix Home Appliance Div., Avco Mfg. Corp.; The Coolerator Corp.; Crosley Div., Avco Mfg. Corp.; Deepfreeze Appliance Div., Motor Products Corp.; Frigidaire Div., General Motors Corp.; General Electric Co.; Gibson Refrigerator Co.; Hotpoint Co., Div. General Electric Co.; International Harvester Co.; Kelvinator Div., Nash-Kelvinator Corp.; A. J. Lindemann & Hoverson Co.; Norge Div., Borg-Warner Corp.; Philco Corp., Major Appliance Div.; Quicfrez, Inc.; Seeger Refrigerator Co.; Servel, Inc.; Westinghouse Electric Corp.

Refrigerator Sales--

(Concluded from Page 1, Column 5)

Domestic sales of 368,496 units were 4% higher than February and 33% higher than March, 1951.

Total world sales for the first three

months of the year passed the million mark, to reach 1,152,700 units. A year ago, sales for the same three months were only 851,375 refrigerators.

A new member, Servel, Inc., began reporting its sales to the household refrigerator section in March.

durability makes
Delco Motors
FIRST CHOICE!

To keep your products going strong on the market as well as on the job, equip them with durable, dependable Delco Motors. Use Delco Motors and you'll quickly discover that they are in fact the ideal power plant for both air conditioning and refrigeration units.

Every Delco Motor is built to standards that assure long life and dependable operation. What's more, Delco Motors have proved their superiority in countless installations to the complete satisfaction of an ever-increasing number of manufacturers.

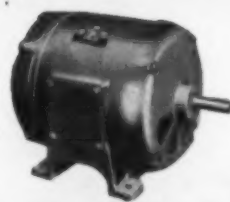
So get the motors that are right on the job... get Delco Motors! Write Delco Products, Dayton, Ohio—or our nearest sales office.

DELCO PRODUCTS

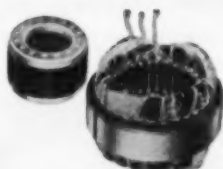
Division of General Motors Corporation
Dayton, Ohio



Delco Single-phase Fractional HP Motors. Repulsion-start, 1/8 through 1/2 hp. Capacitor-start for blowers and open type compressors, 1/8 through 1/2 hp.



Delco Integral HP Motors. Single-phase, repulsion-start, 1 through 5 hp. Polyphase, 1 through 100 hp.



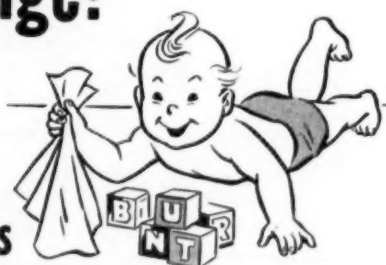
Delco Hermetic Motors. Split-phase, capacitor-start, capacitor-start-and-run. Also polyphase, 1/8 through 15 hp.



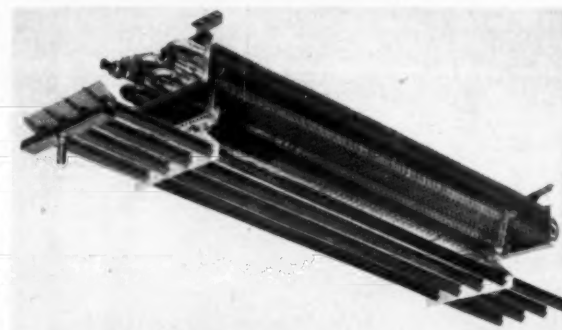
Delco Condenser Cooling Fans. 1/250 through 1/80 hp.

"time for a change!"

to
TENNEY JR. PANS
and
COIL AND PAN COMBINATIONS



for
showcases,
dairy boxes,
butcher and
delicatessen cases,
top display,
single-duty, and
double-duty.



1. Copper-welded connections. 2. Super-sensitive fins. 3. Electro-tin-plated tubing. 4. Mechanically molded bond of faceted fin to tube. 5. Specially designed louvers of new aluminum alloy. 6. Scientifically placed louvers for improved air circulation. 7. Louvers temperature-equalized to prevent dripping. 8. Adjustable spring hangers for quick, easy installation and cleaning.

For better satisfied customers—switch to the TENNEY line. You'll use the most efficient and durable Pans, and Coil and Pan Combinations, products of sound engineering and quality construction. That's why, for every standard or special installation need, don't take just any...specify TENNEY!

Tenney's advanced engineering and manufacturing facilities can handle any and every refrigeration problem. Tell us yours and we'll show you how a Tenney unit will solve it.
Tenney Engineering, Inc.
Dept. E, 26 Ave. B
Newark, N. J.

TENNEY JUNIOR COIL & PAN COMBINATIONS FOR DISPLAY CASES (TOP COIL COMBINATIONS ONLY)							
CASE LENGTH	R.T.R. IN. 30" x 1 1/2"	NO. OF TUBES PER COIL	COIL & PAN MODEL NO.	DEPTH	OVERALL DIMENSIONS IN INCHES		LENGTH
					WIDTH		
4'	330	8	438	7 1/2"	7 1/2"	26	
	445	8	438	7 1/2"	7 1/2"	36	
	575	10	437B	7 1/2"	9 1/2"	36	
5'	530	8	538	7 1/2"	7 1/2"	48	
	695	8	538	9 1/2"	7 1/2"	48	
	865	10	537B	7 1/2"	9 1/2"	48	
6'	990	8	638	7 1/2"	7 1/2"	60	
12'	1990	10	12310	7 1/2"	9 1/2"	132	
TENNEY JUNIOR COIL & PAN COMBINATIONS FOR DAIRY WALL CASES							
6'	1285	10	W61	8 1/2"	11 1/2"	60	
8'	1890	10	W62	8 1/2"	11 1/2"	84	
10'	2775	10	W123	8 1/2"	11 1/2"	108	
12'	3750	10	W123	8 1/2"	11 1/2"	132	

A complete range of standard sizes. Special sizes built to order.



Tenney
ENGINEERING, INCORPORATED

5512

Engineers and Manufacturers of Automatic Temperature, Humidity and Pressure Control Equipment

Coleman To Head GAMA; Trane Will Lower Prices Arden, Rockwell Elected Of Coils, Air Conditioners

WHITE SULPHUR SPRINGS, W. Va.—Sheldon Coleman, president of The Coleman Co., Inc., was elected president of the Gas Appliance Manufacturers Association at the group's 18th annual meeting held here recently.

He succeeds James F. Donnelly, vice president in charge of sales of Servel, Inc. Coleman and all other officers will assume their duties next Oct. 28 at a board of directors meeting.

Other GAMA officers include T. T. Arden, executive vice president of Grayson Controls Div., Robertshaw-Fulton Controls Co., first vice president; W. F. Rockwell, Jr., president of Rockwell Mfg. Co., second vice president; and Lyle C. Harvey, president and general manager of Affiliated Gas Equipment, Inc., treasurer.

Hotpoint Distributors To Get Best Ads of Month

CHICAGO—A new "idea exchange" program, designed to present to all Hotpoint distributors the three best advertisements selected by the Hotpoint advertising department, was announced recently.

The new program is basically designed to show company distributors what key accounts are doing in the way of product presentation in advertising.

According to Gordon G. Hurt, Hotpoint advertising manager, each month all key accounts ads are judged by the advertising staff on the basis of layout, art treatment, copy, and visual presentation. The three best are reproduced and sent to distributors.

"What a New York key account is doing in advertising may be adapted to a San Francisco key account," Hurt said. "Hotpoint is merely acting as middle man in this program in order to disseminate what we believe to be the best of the group advertisements. It is paying dividends to all key accounts as well as Hotpoint."

Each Hotpoint distributor has been mailed a large scrap book to keep these reproductions for future reference.

Bank Opens Air Cooled Branch at Ala. AF Base

MONTGOMERY, Ala.—Personnel of Gunter Air Force Base can now do their banking in air conditioned comfort without coming to town.

Recently the Union Bank & Trust Co. opened an air conditioned branch office at the base.

Today's Best Seller! Cunningham

Frozen Food
Dairy Products
Ice Cream
Fresh Vegetables

Display Cabinets



• Pictured, our new 1953 Model, 78" long, Dairy Products Display Cabinet.

Cunningham Cabinets

are

Designed and priced for the market where you can make sales every day.

Write for our 1953 Catalog and the "Cunningham Sales Plan."

Cunningham Products Company

8790 Grinnell • Detroit 13, Mich.

LA CROSSE, Wis.—Economies in product design and production engineering will enable the Trane Co. to reduce prices of basic cooling and heating coils for air conditioning systems and UniTrane air conditioners, despite rising materials costs D. C. Minard, president, declared recently.

Speaking at an intensive refrigeration and air conditioning seminar for 78 key field sales engineers, Minard told them that new products introduced since January, 1950 will account for more than one-third of the company's sales during 1953.

These products include a wide range of refrigeration machines, water chillers, and self-contained water-saving air conditioners, and new types of home hot water baseboard heating, gas-fired industrial unit heaters, and schoolroom ventilating units.

New orders for all Trane products are up 33%, compared with a year ago, while new orders for all refrigeration and air conditioning products

have increased at the highest rate in the company's history.

The Trane Co. has doubled its product development staff in three years and virtually completed construction of a new laboratory that will represent a million dollar investment when fully equipped in 1954.

General Controls Promotes Richard Ray To Vice Pres.

GLENDAL, Calif. — Richard G. Ray, youngest of four Ray brothers active in the management of General Controls Co. has been named vice president in charge of manufacturing.



Richard G. Ray, youngest of four Ray brothers active in the management of General Controls Co. has been named vice president in charge of manufacturing.

Ray, who will retain his former responsibilities as plant superintendent for the automatic controls manufacturing firm, is a mechanical engineering graduate of Stanford university and a Navy veteran.

Detroit Controls Clinic Plays One-Day Stands



"CLINIC" sponsored by Detroit Controls Corp. gets undivided attention of four visitors as Willis Stafford and Everett Crowley make a point to the group of wholesaler's customers at the right of the picture. The clinic-type show has been touring the country, according to the company.

Anderson of Va. Smelting Gets Annual 'Sammy' Award

NORFOLK, Va.—George A. Anderson, New York representative of the Virginia Smelting Co., was honored as a recipient of the annual "Sammy" award by the Hampton Roads Sales Executives' Club at a meeting here.

This is the second annual presentation of the club, a national organiza-

tion. The club originated this plan in 1951 as a means of rewarding noteworthy achievement of salesmen. The "Sammy" is to the salesman what the "Oscar" is to the Hollywood star. Anderson has been a member of the "Virginia" Sales Staff for 19 years.

HIGHER EFFICIENCY • GREATER CAPACITY • FASTER PICKUP



ANSUL T-FLO DRIER WITH ANDRITE THE HIGH-SPEED DESICCANT

Picks up moisture faster . .
holds more moisture longer . .
than any other type or form of
desiccant or refrigerant drier.

Buy them at leading refrigeration wholesalers everywhere

Ansul T-Flo Driers are new in design, new in appearance and contain the remarkable new desiccant, ANDRITE. They provide greater capacity, higher efficiency and a faster rate of moisture pickup. In addition they are easy to install and much easier to replace than the conventional types of refrigerant driers.

ANSUL
Chemical Company
REFRIGERATION DIVISION • MARINETTE, WISCONSIN

MANUFACTURERS OF REFRIGERATION PRODUCTS, INDUSTRIAL AND FINE CHEMICALS, LIQUEFIED GASES AND FIRE EXTINGUISHING EQUIPMENT

INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)

to the limit of the people's power to pay, and continues to pile up deficits," he emphasized in an early speech, "then it is on the road to bankruptcy."

Sound Advice for Sellers

"The most common mistake a salesman makes is this: When he poses a question, the prospect may remain silent for what seems to be a great length of time."

"So the salesman becomes embarrassed. He blurts out something that relieves the prospect of the responsibility of replying."

"A salesman must learn not to be embarrassed by the pause that follows his question."—JOHN M. WILSON, Vice President of the National Cash Register Co.

Wisdom of the Week

"We prize books, and they prize them most who are themselves wise."—EMERSON.

"If all the years were playing holidays, to sport would be as tedious as to work."—SHAKESPEARE.

"Freud was a great man. But it is dangerous when a great man is

too easily half-understood."—HANS ZINSSER.

"Success means making the most of such ability, personality, and physique as you have. Don't measure your success against others, but against your own potentialities."

If you become imbued with this philosophy of life and . . . do the best you can, and achieve the feeling that you are doing the best you are capable of, you have attained as much success as any man can attain."—Roebing Record.

"We learn by planting things in the mind which later bear fruit in understanding."—LUIS MUNOZ MARIN.

Women Trouble

"Every kitchen exists around a woman," declares George E. Whitlock, president of the Mullins Mfg. Co. (His firm manufactures Youngstown Kitchens). "Whether women buy kitchen cabinets or camisoles, they buy what is right for them. Let's not kid ourselves, our business depends on understanding and selling women."

What's right for one woman isn't always right for the next.

Some gals adore the idea of a kitchen "flowing" into the living room area. They feel that on arrangement of that sort ends their exile while they are stirring the stew. Others, shunning audience participation, prefer a separate kitchen which keeps cooking odors from migrating.

However, facts are facts. Between 50% and 80% of all meals are eaten in the kitchen, according to McCall's "My Kitchen" contest entrants. Kitchens with nearby first-floor

laundries are growing in popularity. So are kitchen facilities for desk work, sewing, entertaining, and fluffing off children.

While most women still buy white ranges, refrigerators, freezers, and kitchen cabinets, color is making inroads. Color in counter tops, paint and wallpaper, floor covering and accessories, adds decorating paprika to the little woman's workshop.

In cabinets, there's a stepped-up interest in natural wood and in yellow. In major appliances, manufacturers cleverly cater to the rainbow urge with colored handles, decals, and snap-on covers.

"Women are still working too hard and too long," declares gallant L. J. Sorensen, head of Deepfreeze "We've only scratched the surface up to now. A decade hence, women will have much less burdensome work around the house, thanks to the dozen of new appliances that men will design and produce."

To which Charles Sievert adds: "We'll buy that, 'cause when the gals have less work at home, there'll also be less for them to push off on the men."

Do You Have To Sell, Too?

Sitting and sipping in a tavern, three salesmen spied a solitary woman.

"I hate to see a girl drink alone," observed the liquor salesman.

A wholesale grocery salesman added: "and I don't like to see a woman eat alone."

The Third Man, who represented a mattress firm, remained silent.

Sometimes it pays a salesman to keep his mouth shut at the right time.

Three Shelves of "Self Service Selling" in the Floor Space of One!

Pinnacle Self Service DAIRY and BEVERAGE REFRIGERATORS



All porcelain and stainless steel panels with exception of outside back and bottom. Ends removable for continuous run installations. Cooled by means of finned gravity coils. Fluorescent lighting, U.L. approved.

Model No. SSDC-528

8'-10" long, 40" wide, 74" high

ALSO AVAILABLE WITHOUT SUPERSTRUCTURE

FREE FOLDERS OF COMPLETE PINNACLE LINE AVAILABLE.

A few exclusive PINNACLE territory Franchises are still available. Write or wire immediately for full information.

Pinnacle
EQUIPMENT CORPORATION
FLEETWOOD, PENNSYLVANIA

Export Dept.: 39 Broadway, New York

'Soft White' Fluorescent Makes Good All-Around Light for Supermarkets

CLEVELAND — The refrigeration contractor whose customer is faced with problems in lighting his market will benefit from some suggestions offered at the 16th annual convention of the Super Market Institute here.

R. S. Smart, division engineer for Sylvania Electric Products, outlined a solution to fluorescent lighting problems that is, he said, "surprisingly simple, results in minimum maintenance cost, and is foolproof regardless of how well informed and careful the maintenance man may be."

"Experience a few years ago indicated that meat departments presented the greatest fluorescent lighting problem in the supermarket. All white fluorescent lamps which were available at that time were extremely deficient in the red radiation which is so important to making fresh meats appear fresh."

"After extensive laboratory and field research with the cooperation of the meat packers, butchers, and supermarket operators, who were pleading for a satisfactory fluorescent lamp, the lamp manufacturers developed a new white lamp, designed 'Soft White.'"

"This lamp emits white light containing adequate components of all of the major colors found in supermarket merchandise. Thus it provides satisfactory color values in the meat department as well as very acceptable color values in all other departments," Smart said.

"The fluorescent lamp designated 'Cool White Deluxe' will be found equally as satisfactory in all departments except the meat department and actually may be preferred by some of you because of its cooler appearance. However, because the 'soft white' lamp is required in the meat department and is otherwise satisfactory in other departments, its use in the entire store is recommended."

"Using only one type of lamp prevents any possibility that a maintenance man may substitute the wrong lamp when replacing one that has failed, and it also makes it unnecessary to carry more than one fluorescent lamp type in maintenance stock," he said.

"It may be found that the fluorescent lamp, which is not a concentrated light source like the incandescent lamp, may not provide enough sparkle in fresh meats. Sparkle, not being a color problem, can be added very effectively by supplementing the general fluorescent lighting with incandescent spotlight or floodlight lamps," Smart suggested.

Sta-Cold Moves

BELL, Calif.—Sta-Cold Refrigeration Service Co. moved to new quarters at 4264 E. Florence Ave. here on June 1. Telephone numbers remained unchanged.

Harold A. Halls Appointed To 'Recold' Sales Force

LOS ANGELES — Appointment of Harold A. Halls as a member of its sales staff has been announced by Refrigeration Engineering, Inc., manufacturer of "Recold" refrigeration and air conditioning equipment.



Harold A. Halls

A native Californian, Halls brings to Recold a background that includes more than 25 years' experience in the refrigeration and air conditioning field.

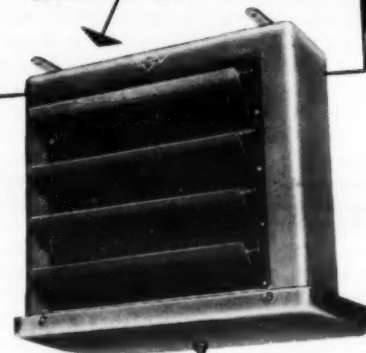
He is widely known throughout the industry, having been a frequent speaker before various refrigeration groups as well as serving as a member of the Industry Advisory Committee to the U. S. Department of Education.

N. Y. Firm Appointed Mitchell Repair Depot

NEW YORK CITY—Mitchell Mfg. Co.'s appointment of Technical Refrigeration Specialists, a subsidiary of Sealed Unit Parts Co., Inc., as a repair depot in New York City for window air conditioners and dehumidifiers was announced here recently.

The facilities of Technical Refrigeration Specialists will be used to insure prompt service.

LARKIN
means good looks



LARKIN HUMI-TEMP UNIT

For clean, smart lines, satin-smooth finish, harmonious color and overall good looks—Larkin leads. Behind this beauty is the quality and performance that keeps Larkin out in front!

Manufacturers of the original Cross-Fin Coil • Humi-Temp Units • Frost-O-Trol Hot Gas Defroster • Evaporative Condensers • Cooling Towers • Air Conditioning Units and Coils • Direct Expansion Water Coolers • Heat Exchangers • Disseminator Pans.

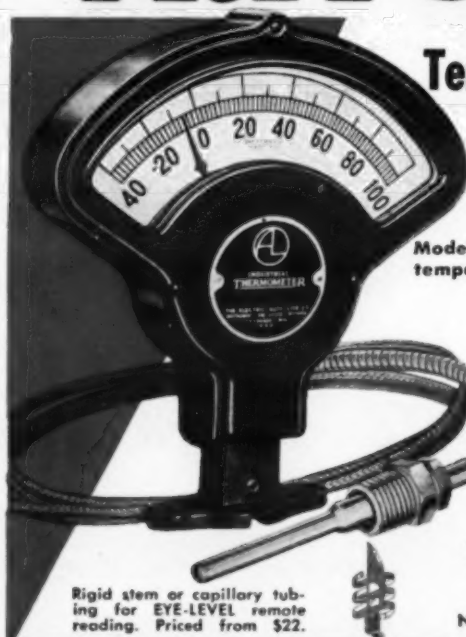
WATCHDOG OF THE NATION'S FOOD SUPPLY

LARKIN COILS

519 MEMORIAL DR., S.E. • ATLANTA, GA.

AUTO-LITE

... for Temperature Indication



3-way adjustable mounting

Model F-1 temperature indicator

Auto-Lite offers many thermometer styles, permitting plant-wide temperature observation at low cost. Standard temperature ranges from minus 60°F to plus 750°F. Send for latest catalog showing various types.

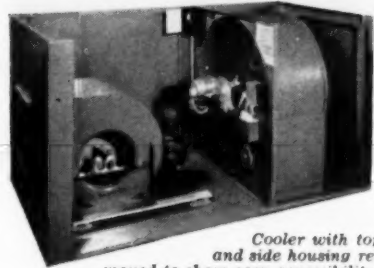
THE ELECTRIC AUTO-LITE COMPANY
INSTRUMENT AND GAUGE DIVISION
TOLEDO 1, OHIO
NEW YORK • CHICAGO • SARNIA, ONTARIO

TEMPERATURE INDICATORS & RECORDERS

HERE'S REAL HOT WEATHER RELIEF

...and a 5-year warranty!

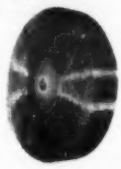
You offer both when you specify FAR-AIR's* package unit with the Golden Rotor!



Cooler with top and side housing removed to show easy accessibility.

Far-Air coolers give your customers more cool, clean air for their money. They're scientifically engineered to do a better cooling job at lower cost. They're ideal for cooling, filtering, humidifying, ventilating and circulating air.

Heart of Far-Air efficiency is the Golden Rotor. Constructed of bronze screen spirally wound on a brass drum, it revolves at 1½ RPM through water to present a uniform, constantly-wetted surface to the air stream.



Far-Air coolers are corrosion resistant throughout, precision-built of highest quality materials, equipped with a dependable, quiet motor and high-grade blower — backed by a 5-year warranty!



Installation is simple—only one water and electrical outlet and one drain to connect. Rotor can be cleaned easily when necessary by playing water from garden hose through it.

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PHILADELPHIA 46, PA.

RACCA Survey Shows—

If Contractor Is To Profit on Service, He Must Charge Double Serviceman's Wage

CHICAGO—How much should a contractor charge for service so that he can be assured of a profit?

The answer to that question will vary, of course, from city to city and contractor to contractor, but the view has often been expressed in many quarters that some firms don't realize how many costs must be added to the serviceman's basic wage just to break even on service, aside from making a profit.

In an effort to show what these "hidden" costs are, a survey has been made by the Chicago Association of Refrigeration and Air Conditioning Contractors Association.

The results, shown in the accompanying table, might well serve as a guide for contractors everywhere, it was suggested at a recent joint meeting of the Chicago and Cleveland associations of RACCA.

According to this study, if a contractor is to make a profit on service work, he must charge more than double the serviceman's wage.

The table assumes that the serviceman's basic wage equals 100%. The total cost to the contractor for doing service work, including the basic wage paid to the serviceman, then totals 207.64%.

This percentage, RACCA emphasizes, will vary in different areas, but

all the individual items of cost that must be added to the basic wage will be found, probably, in any area.

The table shows, for example, that to the serviceman's basic wage must be added insurance (9%), welfare fund (this may vary considerably—3%), automobile expense (8%), office overhead (51.6%), unapplied time (17.6%), and gross profit (18.88%), which arrives at the total of 207.64%.

The 9% allowed for insurance includes six items: Social Security, unemployment, workmen's compensation, public liability and property damage, products liability, and miscellaneous.

Office overhead includes such things as rent, heat, phone, electricity, clerical, advertising, bad debts, and others. In this survey office overhead totaled 43% of the 120% representing the total cost before overhead, including basic wage, insurance, welfare fund, and automobile expense. This figured as 51.6% of the base.

Unapplied time was found to represent another 10% of the mounting total, or 17.16% of the base.

Gross profit is obtained by taking a 10% markup on the cost at this point, which amounts to 18.88%. In terms of the total cost to the contractor, however, the gross profit is equivalent to 9%.

Although it is not specifically mentioned in the table, the gross profit of 9% is, of course, before taxes.

Wholesaler Asks \$2

Deposit on 1953 Catalog

MELROSE PARK, Ill.—Adopting a new policy on catalog distribution, Service Parts Co., refrigeration parts wholesaler here, will distribute its 1953 catalog to recognized dealers and contractors only upon receipt of a \$2 deposit.

Pat Ravanesi, manager of the company, said the new policy was adopted because of increasing labor, printing, and distribution costs. Ravanesi said the company recognizes the value and convenience of a catalog as a buyers' guide for the dealer and contractor. Rather than reduce the area of distribution, Ravanesi said that the company chose this method of solving its problem.

He pointed out that when the contractor or dealer places an order totaling \$10 or more with the company, the \$2 deposit will be deducted from the order to reimburse him.

A coupon is included with the catalog and serves as a receipt for the \$2 deposit, Ravanesi explained. If no orders are placed within a specified period, Service Parts Co. retains the \$2 deposit.

The catalog consists of 224 pages and lists the products of major manufacturers of refrigeration, air conditioning, and heating equipment, supplies, and tools.

Lohmiller In New Location

PHILADELPHIA—H. V. Lohmiller, Inc., authorized Frigidaire service station here, announces that it has moved to a new location at 4727 N. Broad St. The firm said many operational improvements have been incorporated in the new quarters. The new telephone number is MICHIGAN 4-9500.



Service & Supplies

RACCA Guide for Service Costs

Basic Wage for Serviceman Equals 100%

To arrive at cost for doing service work, add the following costs:

Social Security	1½%
Unemployment	3%
Workmen's Compensation	1½%
Public Liab. & Prop. Damage Ins.	1%
Products Liability Ins.	1%
Miscellaneous	1%
Total Insurance	9%
Welfare Fund (may vary)	3%
Automobile Expense	8%

Office Overhead—Rent, heat, phone, electricity, clerical, advertising, bad debts, etc. (43% of the 120%) 120%

Unapplied Time—Add 10% 51.6%

Gross Profit (10% markup—9% profit) 171.6%

Total Cost to Contractor for Doing Service Work 188.76%

18.88%

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"I have always felt that whatever the Divine Providence permitted to occur I was not too proud to report. The people are not served by pussyfooting, or by that sort of journalism in which nobody will ask who is the editor of a paper or the writer of an article, and nobody will care."—Charles A. Dana.

Hot Prospects For Room Units

LAST SUMMER industry wits observed: "Hot cakes are selling like room air conditioners."

Manufacturers and distributors will not forget soon their frantic efforts to supply dealers who sold window units as fast as received. Principal cause of this terrific spurt in sales was obviously the record-breaking heat wave.

Some manufacturers and distributors (not to mention dealers), also still recall the summer of 1951 when sales weren't so hot. Neither was the weather.

Does this mean, then, that the room air conditioner business is at the mercy of the weather; that if we don't have a hot summer, especially several scorchers at the beginning of the season, some people in the business will be hurt this year?

Possibly, but it ain't necessarily so.

Some highly successful distributors found in the past that they could sell window units year-round, even in northern climates where sub-zero days are not unusual in winter. They emphasized that there's more to air conditioning and a room unit than just cooling. Ventilation, air filtering, circulation, and exhaust are functions as desirable in January as comfort cooling in July. Heating and other features available in some models give added weight to this line of reasoning.

The good dealer should therefore be able to sell window units this summer regardless of the weather.

But can the average specialty appliance dealer move these units in the event of a cool summer? That's an extremely important question, for if the industry hits its contemplated production schedule this year, there'll be considerably more than twice as many units turned out as were manufactured last year.

This means that the average dealer, as well as his more successful competitor, will have to sell one heck of a lot of units in '53.

There is no good reason why it can't be done. The fact that so many new firms entered the field this year should create a snowball effect to help the entire industry. The newcomers will be advertising and promoting window units to get their share of the total business. As a consequence, the over-all impact on the consumer will be stronger than ever before.

"If so many people are making and selling 'em, there must be something in it," is a common enough reaction of the consumer.

THE PHENOMENAL growth of room air conditioner sales in the past few years will most certainly continue.

The magic MILLION goal, believe insiders, may be attained much sooner than any of us thought possible a short time ago.

What was until recently an "infant industry" may well disprove the old saw about having to "walk before you run." Perhaps they'll coin a new one: one jump from cradle to jet.

Not to decide questions that are not pertinent at the time is uncommon good sense, though to raise them may be uncommon perspicacity. Not to decide questions prematurely is to refuse commitment of attitude or the development of prejudice. Not to make decisions that cannot be made effective is to refrain from destroying authority. Not to make decisions that others should make is to preserve morale, to develop competence, to fix responsibility, and to preserve authority.—CHESTER I. BERNARD in "The Function of the Executive."

Question of Oil Foaming

Dr. Ross of Sun Oil Discusses Popular, Controversial Subject of When and Where Additives Are Used To Solve Special Problems

DETROIT—"If you want to impress your associates by discussing the most current topic in refrigeration problems, then talk about the latest 'fad'—oil foaming," suggested Dr. Edgar S. Ross of Sun Oil Co. before the Detroit chapter of the National Association of Practical Refrigerating Engineers.

"Last year," he said, "we began to hear about foaming and defoaming of mineral oils as if it were a brand new problem, but that problem is really as old as the hills.

Some Say Oil Foaming Reduces Noise

"Through the years we've been asked for two things, among others, by compressor manufacturers. Some manufacturers have wanted an additive that would make oil foam. This, they said, would reduce the noise of their machines and improve heat transfer within the compressor.

"Other manufacturers, however, have asked for oils or additives that would prevent foaming.

"Now these permanent foamers or defoamers, you must understand, are intended to solve special problems due to peculiar conditions resulting

from machine design or applications.

"Then in 1952 an oil was offered on the market to prevent foaming and was recommended for all systems. As a result, perhaps, the industry last year had more oil-logged systems than ever before.

Oil Should Foam In Flooded-Type System

"There are many systems, particularly those of the flooded type, where oil has to foam in order to be returned to the crankcase. A defoamer additive will prevent foaming and thus prevent the oil from getting back to the machine. Eventually, the system becomes logged with oil," Dr. Ross declared.

There are also systems, he added, where much refrigerant will collect in the compressor, especially if the machine is off for some time. When the machine starts up and refrigerant and oil mixture in the crankcase will boil violently and oil will be carried over.

"Here, though, it's the refrigerant that's boiling, not the oil, but the bubbles of refrigerant will mechanically carry oil with them," he explained.

Before discussing the "latest fad" of oil foaming, Dr. Ross reviewed earlier "fads" of the industry, as he called them.

Each Era Has Its Problems

"Along about 1938 you discussed copper plating. The answer to that was not white oils but dry systems. Then in the early 40's moisture was the chief talking point. The industry wanted to get dryer and dryer systems, and one improvement made was to produce oils with less moisture.

"Although it seemed that the moisture problem had been overcome, we began to get the same symptoms of icing, but there was no moisture. What was happening now, it was finally learned, was that wax was collecting at expansion valves and restricting or stopping refrigerant flow."

This problem, too, was solved, and along about 1948, according to Dr.

Ross, operating temperatures of refrigeration compressors went up.

"Then thermal stability of oils was the popular topic. This was licked, and then followed the foaming problem of last year."

At the beginning of his talk, Dr. Ross outlined the composition of oils in general, comparing the refining process to that of preparing wool.

"A flock of sheep may be likened to an underground bed of oil. When you shear the sheep you have a pile of wool, just as you pump a tank of crude oil from the well. But you have to do a great many things to the wool before you can even weave it into a thread. Likewise, you have to remove many impurities from crude oil to get lubricating oil distillate.

"Once you get the wool thread then you have to decide what type of cloth it's going to be used for, because this will determine how the thread is to be treated.

"You have the same problem with the distillate. You have to decide what kind of oil you want, and then you can treat the distillate to obtain that particular oil."

Dr. Ross further explained to the group that the three basic ingredients of mineral oil are paraffins, aromatics, and naphthenes.

"The paraffins are the solid hydrocarbons; naphthenes are the liquid hydrocarbons, and the aromatics are the stabilizing hydrocarbons.

"For every mixture there is an

optimum amount of each of these three groups for the particular end product."

Discussing the question of pale oils vs. white oils, Dr. Ross declared that "the early white oils maintained a high level of over-all efficiency for a period of time and then deteriorated suddenly and completely. This resulted in the rapid formation of highly corrosive acids.

"Pale oils deteriorate very gradually and in the process also form acids, but the acids formed are harmless to refrigeration systems.

Danger from White Oils

"If we were still using sulphur units, and these were running wet, we might still fall back on the highly refined white oil to offset the sludging action of sulphurous acid. But even this could result in the formation of strong acids and serious copper plating.

"There is one company today," Dr. Ross said, "who is using white oil, but this oil is highly souped up with additives.

"There is one place only where white oils will do an efficient job of lubrication—the bowels and the intestinal tract."

Service & Supplies

Dr. Walker Named Dean Of Miami Univ. Division

CORAL GABLES, Fla.—Dr. Walter O. Walker, professor of chemistry and director of industrial chemical research, has been appointed dean of the Division of Research and Industry at the University of Miami, Dr. Jay F. W. Pearson, university president, announced recently.

Since 1951, Dr. Walker has been director of industrial chemical research and has developed special research projects in refrigeration chemistry.

His new duties will be the coordination of all research studies at the university.

Dr. Walker became associated with the University of Miami in 1932 as assistant professor of chemistry, but later was elevated to full professorship and appointed chairman of the Chemistry Dept.

In 1936, he was granted leave of absence from the university to accept the directorship of research at Ansul Chemical Co. He remained in that post until 1951, when he rejoined the University of Miami faculty.



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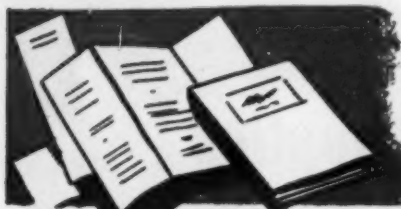
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Current LITERATURE available

To obtain further information on the literature listed below, please refer to key number preceding listing. Please use the "Information Center" form on "What's New" page.

New Edition of Partlow Control Manual Issued

—KEY NO. O-630—

NEW HARTFORD, N. Y. — The Partlow Corp. here has published a new edition of its manual titled "The Design and Process Engineers Guide to Industrial Temperature Measurement and Control."

This newly-revised 24-page, two-color manual — available without charge to process engineers, plant managers, design engineers, and heating engineers — presents the basic principles of industrial temperature control in practical fashion.

Called Bulletin No. 101, it defines different types of control systems and distinguishes between them so that the engineer can select the type most suited to a particular application.

The manual discusses: the eight ways of responding to temperature; the five ways of putting that response to work; and the nine basic Partlow instrument types. It then takes up evaluation of systems and the important considerations in application engineering.

Clarified are: (1) the influence of

the firing system upon design of the control system; (2) fundamental principles of mercury-bulb installation; and (3) the basic concepts of electrical and mechanical control theory.

These concepts include: the control circuit versus the load circuit; one-point, two-point, and program control; two-wire, three-wire, and potentiometric control; two-position control; the use of diaphragm valves; and the reasons for three different types of temperature-sensitive elements being available.

Typical control circuits and piping system arrangements, as well as the ranges and calibrations of scales and dials are presented diagrammatically.

Brochure Tells How To Make Trade Show Exhibits Pay

—KEY NO. O-631—

NEW YORK CITY — "Getting More for Your Exhibit Dollar" is the name of a brochure issued by Clapp & Poliak, Inc., exposition management firm here, and offered free to those who ask for it. It details more effective methods of conducting exhibits at industry shows.

Bulletin Gives Data on Baldor Portable Fan Line

—KEY NO. O-632—

ST. LOUIS — Bulletin No. 347C, describing Baldor's new line of portable fans in 16, 20, and 24-in. sizes, was announced recently by the Baldor Electric Co. here.

Information on improvements to the Baldor window fan line, such as removable screen, wider range of adjustment, carrying handle, and recessed switch buttons, is also included. So is data on the firm's exhaust fans and air circulators.

Reynolds Enlarges Book On Welding Aluminum

—KEY NO. O-633—

LOUISVILLE, Ky. — The welding, brazing, and soldering of aluminum are detailed in a new 186-page process manual called "Welding Aluminum" recently published by the Reynolds Metals Co. here.

This is a greatly enlarged edition of the manual by the same title published by Reynolds in 1946. The new edition includes material on 34 processes suitable for the welding, brazing, and soldering of aluminum and its alloys.

The book contains 35 tables, most of which are devoted to detailing machine settings and exact welding procedure for the various processes.

It is ring bound to lie flat when open. Measuring 6 by 9 in., it contains 125 charts and illustrations.

It will be sent without charge to any engineer, designer, technical man, or company executive requesting it on company letterhead. To others the price is \$1 per copy.

Publishes 1st of Studies on Consumer Credit Financing

—KEY NO. O-634—

BALTIMORE, Md. — Publication of the first in a series of studies of consumer credit financing, incorporating historical data on the financing of consumer durables, has been announced by Commercial Credit Co. here.

The study is entitled "The Role of the Sales Finance Companies in the American Economy." It was written at the request of Commercial Credit by Dr. Clyde Williams Phelps, head of the department of economics at the University of Southern California. Dr. Phelps is described as "one of the leading authorities on finance and consumer credit."

Manual Helps Heating Men Install Air Conditioning

—KEY NO. O-635—

CLEVELAND — Publication of a new design and installation manual covering summer air conditioning has been announced by the National Warm Air Heating and Air Conditioning Association.

This manual is entitled "Manual 11 — Summer Air Conditioning for New and Existing Residences."

The objective of this manual is to furnish a design and installation procedure that includes all the necessary elements to provide the homeowner with cooling comfort enjoyment with a minimum of installation and operation costs. This procedure has been developed for residential applications only.

In an effort to help the heating contractor who may be considering entry into the field of summer air conditioning, the purpose of Manual 11 is to serve as a guide that he can follow with assurance of proper design and installation practices.

Manual 11 contains information on the use of summer cooling with either slab or crawl space warm air perimeter heating systems. Charts and tables for the design of a summer air conditioning system for use with the small pipe system as well as the conventional forced warm air heating system are included.

The manual was prepared by the summer air conditioning committee of the National Warm Air Heating and Air Conditioning Association with the aid of the Air Conditioning & Refrigerating Machinery Association and the National Association of Home Builders.

Manual 11 is priced at \$1 per copy. Association members are entitled to the regular 40% discount.

IBM Folder Cites Uses of Time, Program Controls

—KEY NO. O-636—

NEW YORK CITY — New applications of IBM electronic time and program controls are outlined in a free folder, "IBM Electronic Utilities Control," available from International Business Machines Corp.

These controls, used with the proper intermediate electrical devices, provide an automatic means of programming the starting and stopping of many mechanical functions without the need for special wiring, according to the company. Regular a.c. lighting wires are used.

Applications for which IBM time and program controls can be used include the operation of relays, solenoids, and motors to open and close ventilators, turn heating and air conditioning systems on and off, actuate flush valves, switch light circuits on and off, sound signals, and open and close lawn sprinklers and irrigation equipment.

"The programs can be set up on a varied daily schedule as well as for inoperative periods such as weekends, resulting in savings not only in maintenance and operating expenses, but also in resources such as water, oil, coal, electricity, and gas."

Included in the folder is a brief description of a new IBM electronic portable paging system which provides contact between "transient" personnel—such as maintenance engineers, plant personnel, and executives—and the central office of a building or plant. This also will operate without special wiring.

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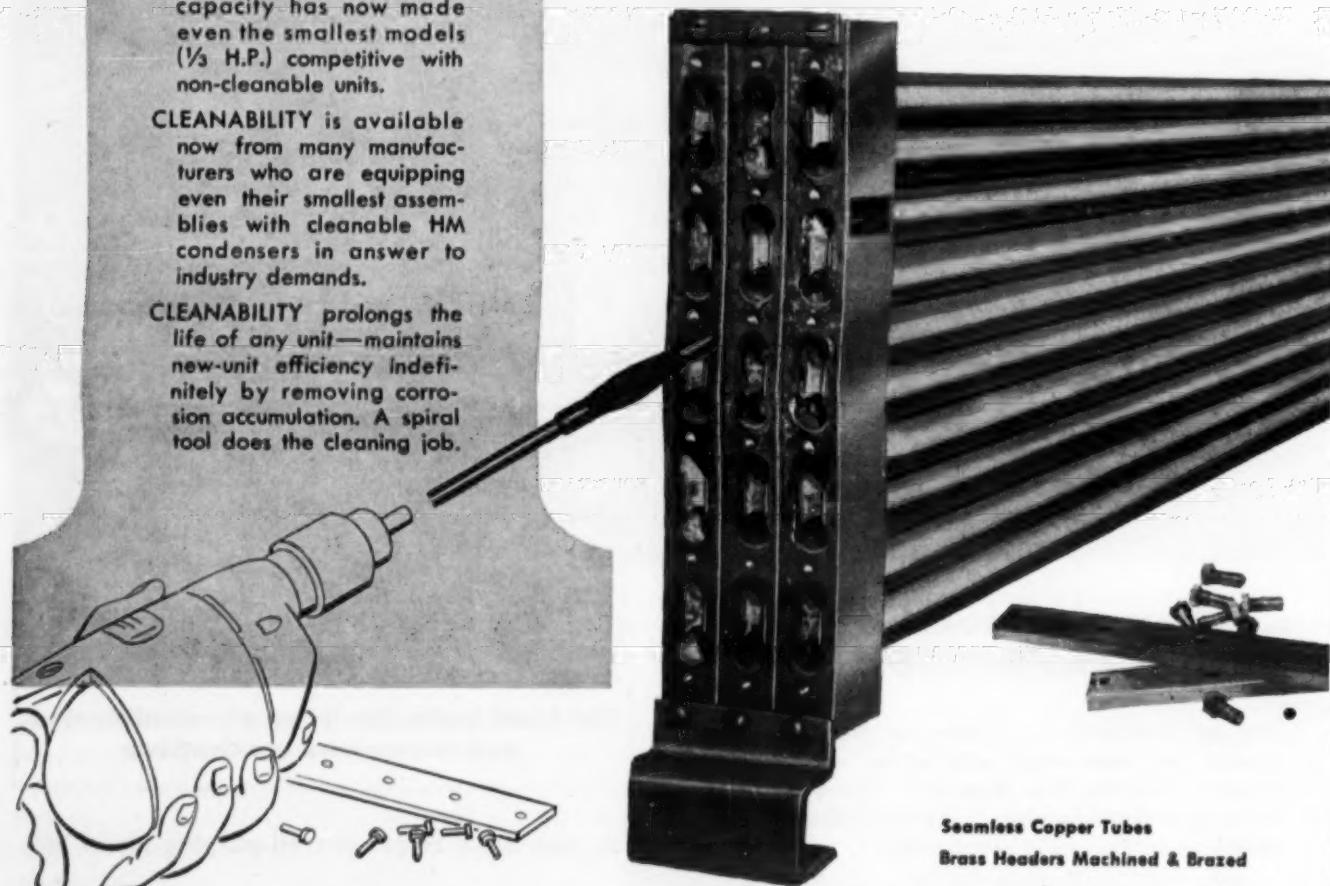
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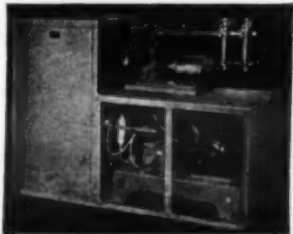
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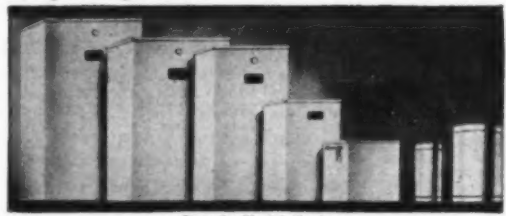
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REMOTE COOLERS FOR ALL USES

Sell your condensing unit with Filtrine Stainless Steel or Duco finished cabinets, equipped to suit with top/side shelves, bubblers, glass-fillers. Can be Taste-Master equipped to remove chlorine, rust, sediment from water.

Sell your condensing unit with Filtrine models repeatedly named by V.A., Signal Corps, Air Force, etc. for X-ray and photo-labs. Under counter design and floor-mounted models with stainless steel work-table top. Filters (extra) to prevent scratched and pin-holed negatives.

Sell your condensing unit! Systems for drinking or processing water—completely packaged with pump, controls, your condensing unit factory installed. Capacities 5-400 g.p.h.; storage 5-150 gals. Filters and Rectifier-Dechlorinators (extra) to insure taste-free, sparkling water.



Remote Model Coolers

Write for catalog and Specification Guide
Filtrine FILTRINE MANUFACTURING COMPANY • BROOKLYN 5 • N. Y.
"Water Coolers and Filters for 40 Years"

THE ever-crisp

Moisturizer*

by NOLIN

assures
complete
produce protection



see for
yourself...



add it up!

it makes dollars and sense

* Constant Natural Moisture is best for vegetables. It eliminates waste and spoilage. Proper refrigeration keeps fruits at their best, eliminates loss.

THE NOLIN POLICY

The material used in the moisturizer is the best we can buy for the manufacture of this quality product.

The workmanship in all cases is carefully inspected by experienced refrigerator experts. It is a quality built product made to last for years.

Better displays, more merchandise,
dew-fresh vegetables.

= **MORE SALES**

Constant refrigeration protects fruit
and vegetables, stops spoilage.

= **LESS WASTE**

The difference is **GREATER PROFITS
FOR YOU!**

STOP SPOILAGE!

IT COSTS YOU MONEY !

**P
R
O
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S**

**P
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F
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S**

FOR
THE
NOLIN
DEALER

dry air at the point of display. Where overin volume turnover is lacking, this can be a serious profit loss and an added labor expense.

The low temperatures and high moisture content maintained in the MOISTURIZER eliminates the necessity of additional sorting and trimming after the fruits and vegetables have been arranged for display. Usual trimming loss turns into profit. Labor once wasted can now be utilized for sales promotion.

SHRINKAGE LOSSES

Hidden profit loss robs you. Shrinkage loss is hidden profit loss. Almost 75% to 95% of fresh fruits and vegetables are water. When displayed in normal atmospheric conditions, much of this water content is lost. For example, peas and spinach will lose 16% in 24 hours. Shrinkage loss means heavy dollar loss where products are sold by the pound.

The specially designed MOISTURIZER cooling coil is constantly adding pure cold moisture to the produce condensed from the atmosphere, and added to the vegetables as naturally as fresh dew. Full normal water content is constantly maintained, and even partially dehydrated produce delivered to you will return to full weight overnight. Additional profits are created, usual shrinkage losses eliminated.

re-trim and sorting, keeping the display in proper appearance, removing the displays at night to the storage cooler and re-dressing the stand in the morning.

Every labor dollar saved is a profit dollar earned. Eliminate re-trim and unnecessary sorting with the MOISTURIZER. Your displays are maintained in best condition right in the MOISTURIZER, and do not need to be transferred at night to a cooler. Reach your maximum sales and profits with a minimum of labor!

SALES LOSSES

Store traffic, usually heaviest between the hours of 3:00 to 6:00 P.M., also finds the fruit and vegetable displays at their worst. They have been picked over, drying out is noticeable, and spoilage makes much of the produce undesirable. Potential sales are reduced, and unavailable full varieties retard sales further.

The MOISTURIZER maintains all items at peak eye appeal until closing hours, ample stocks of all varieties may be purchased without fear of spoilage losses, and each customer is constantly exposed to a wide range of "buying ideas" (stimulation of impulse sales) from opening to closing time. These factors alone will substantially increase sales in the fruit and vegetable department and as a result influence additional sales in all departments.

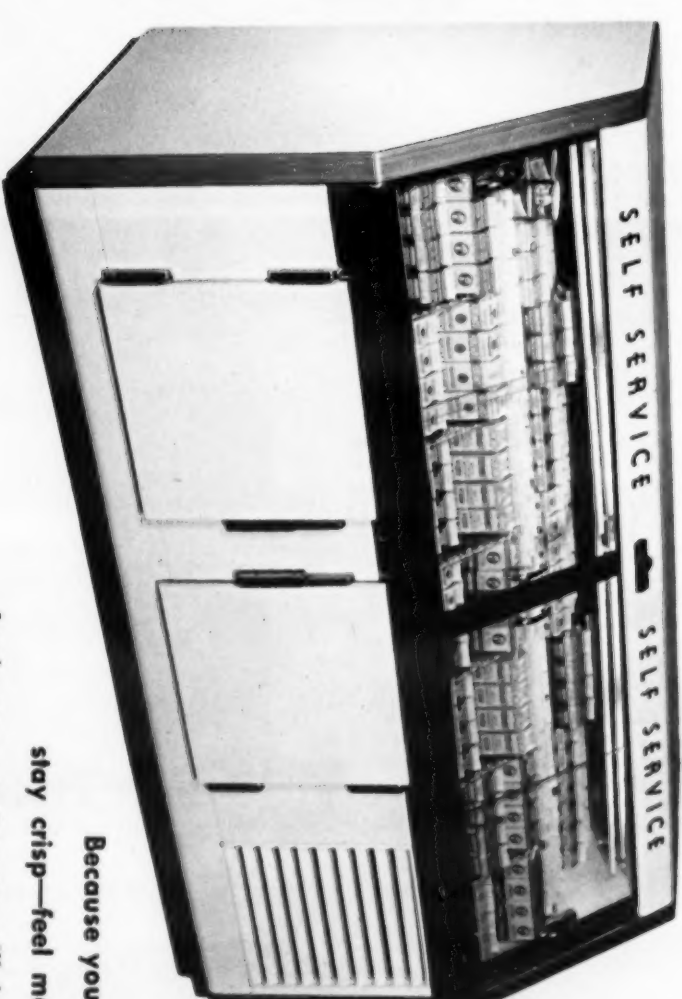
Emphasize your Produce Department!

The average produce department accounts for 25% to 30% of the store's total sales. Some stores run as high as 55%. Are you getting your share?



Build Business At Low Costs

**modern buying
habits**



Because your vegetables stay crisp—feel moist and are fresh, your customers will be stimulated to buy more, and of different varieties!



Available in white or stainless steel. 5'-8'-10' sizes.

Mr. Dealer: Now is the time to ACT!

**Open the door to NEW PROFITS!
MOISTURIZERS are selling fast—**

Why don't you cash in on this business?

LET MOISTURE'S ever-crisp Moisturizer

**BUILD YOUR
BUSINESS AT
LOW COST!**



"Tripled my produce business"

"Vegetables are so fresh and crisp"



"There's such a variety to choose from"

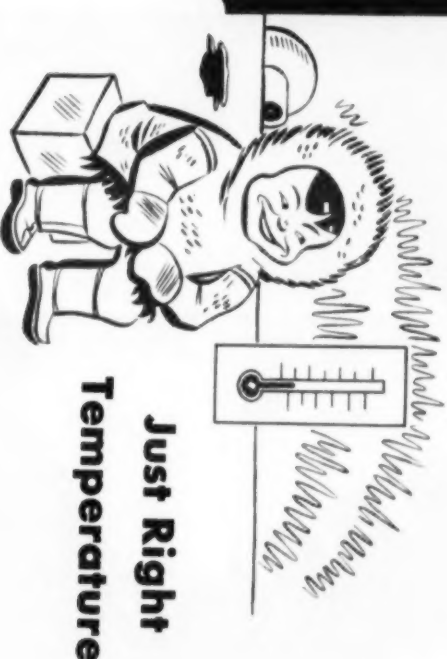


TRIMMING LOSSES

The continual re-trimming of vegetables to maintain sales eye-appeal is caused by too warm temperature and too dry air at the point of display. Where overall volume turnover is lacking, this can be a serious profit loss and an added labor expense.

HIGH LABOR COSTS

The high percentage of labor cost to dollar sales in the produce department can be traced to the necessity for re-trim and sorting, keeping the display in proper appearance, removing the displays at night to the storage cooler



Just Right
Temperature



Just Right
Humidity

Tailored to fit

modern business

DON'T DELAY—PHONE US TODAY!

Telephone 3-4454



(FASHIONS BY NOB HILL)



THE PLANT BEHIND THE PRODUCT

Your customers want
*refrigerated
garden-fresh*
**Fruit and
Vegetables**

NOLINS
Moisturizer
will
provide them

PROPERLY PROTECTED PRODUCE & DAIRY PRODUCTS
mean **More Profits—**for **YOU!**



MODEL MVS-10

Shown used as a combination case. Maximum refrigerated storage with greatest economy.



MODEL MDR-8

A matching non-refrigerated case available in 5, 8 and 10 ft. lengths. Designed for beauty. Built for efficiency. Styled for selling.



**A Valuable Franchise for the Sale
of the Nolin Moisturizer may be
Available in your particular area.
Check with us today!**

NOLIN MANUFACTURING COMPANY
1400 Lloyd Street, Montgomery, Alabama

Supermarket Expansion

Construction Rate Expected To Exceed 1952 and About Equal That of 1951, According to Institute Survey

CLEVELAND—Although the rate of supermarket construction declined in 1952, "definite plans" for 1953 call for about the same rate of expansion as in 1951, the Super Market Institute was told at its 16th annual convention here.

"Projecting the 'definite expansion plans' to the entire membership, the SMI member companies expect to construct about 625 new supermarkets and extensively remodel about 400 supers during the year," declared Curt Kornblau, manager of SMI's Research and Information Service.

300 Members Operate 3,955 Stores

In his annual report, "The Supermarket Industry Speaks," Kornblau gave results of a survey answered by 300 member companies operating a total of 3,955 stores with a combined sales volume of \$3,373,000,000 in 1952. Total SMI membership now numbers 603 companies with 6,639 stores, he revealed.

The survey also dealt with such matters as percentage of self-service operations, operating expenses, sales, size of markets, etc.

"Practically half the companies (49%) intend to expand during the year, compared to 44% in 1952," Kornblau said.

"The new supermarkets will make up 15% of the total supers operated by the members as of January 1953. One out of every five new supers (18%) will be a relocation. Major remodelings (involving structural changes or large investment in new equipment) will take place in 9% of all supermarkets.

"In every region except the Middle Atlantic, operators are planning to increase the rate of expansion above the 1952 level," he declared.

"If they carry out their plans, companies with sales of \$5 million or less will proportionately do the most building and renovating."

One Out of Five Member Stores Is New or Renovated

Discussing the market expansion of 1952, Kornblau commented, "The number of major remodelings was slightly larger than the number of new stores (including relocations) built during the year.

"Nearly one out of every five supermarkets operated by the SMI members is brand new (9%) or was substantially renovated (9%) in 1952.

"This expansion program was executed by 44% of the members—29% of the companies engaged in new construction and relocations, and 28% carried out major remodeling jobs (13% did both).

"The West North Central region led in expansion activity, followed by Canada and the Middle Atlantic region. The Mountain-Pacific area had the lowest rate of building and re-

modeling, according to the survey.

"As in previous years, the percentage of companies which built new and remodeled old markets was higher among the larger companies, but the smaller companies had a greater rate of expansion.

"About one out of every four new supers (26%) was a relocation," he explained.

Three Out of 10 Markets Are Completely Self-Serve

Noting the continued growth of self-service, Kornblau declared that "nearly three out of every 10 super markets operated by the SMI members (28%) are completely self-service in all four major departments (grocery, meat, produce, and dairy). A year ago, 25% of the supers were fully self-service; two years ago, 19%.

"Virtually half (49%) of the supermarkets west of the Mississippi river are completely self-service, as against 20% in the eastern part of the United States.

"The grocery department is self-service in every supermarket, the dairy department in 91% of the supers.

"The majority of produce departments (53%) are on a partial self-service basis, and 44% are fully self-service," he said.

"Well over half of the supermarkets (53%) have complete self-service in their meat departments, compared with 49% last year. Another 24% of the supers have partial self-service, and only 23% are still on a service basis. Complete self-service is now the most common method of meat operation in every region except the West North Central, which has more partial self-service than complete self-service," he commented.

Most Operators Report Sales Gain In All Depts.

"Most operators reported sales increases in every department—87% gained volume in the produce department, 82% in the meat department, and 85% in the 'grocery and other' departments. The rate of sales increases, for all companies combined, was highest in the produce department (16%) and lowest in the meat department (12%).

"SMI member sales in 1952 were distributed as follows: meat department, 25%; produce department, 12%; grocery and other departments, 63%.

"Meat department sales ranged from 30% in the smallest companies (with sales up to \$1 million) to 24% in the largest companies (with sales over \$40 million).

"Operators in the Mountain-Pacific and West South Central areas, where non-food lines are most prevalent, again obtained a larger percentage of their total sales from the 'grocery

and other' departments and a smaller proportion from the meat department," he said.

In the survey SMI members were also asked: "What do you consider the 'ideal' size supermarket for your company today?"

"This same question," explained Kornblau, "was also asked in the first annual survey. At the time it was pointed out: 'The "ideal" size supermarket to an operator is presumably what he would build under circumstances entirely favorable to his requirements. Even though operators may not actually build their "ideal" size supermarkets, this does not detract from the usefulness of a census of their thinking, for it reflects the trends of the industry.'

"Today's composite 'ideal' size supermarket has an over-all floor area of 15,600 sq. ft., one-third larger than in 1949, and a parking lot of 47,200 sq. ft. more than double what operators considered 'ideal' four years ago.

"In other words, the 'ideal' size supermarket of today requires 1½ acres of land for store and parking.

"Ideal" store area varies from 13,200 sq. ft. in the southeast region to 22,200 sq. ft. in the Mountain-Pacific region. The ratio of parking area to store size averages 3, ranging from 2.5 in the Middle Atlantic region to 3.5 in the Mountain-Pacific."

Commercial Refrigeration



For Use In Supermarkets

Frigidaire Division introduced a new all steel compressor rack for compact remote installation at the Super Market Institute show in Cleveland. The rack is offered in 40-in. and 80-in. sizes. The larger one is capable of holding six compressors and all electrical controls. Lovely Joyce Lee is shown "bridging the gap" between compressor and case.

MEET THE

NEW CHAMP

The MIGHTY TEMPRITE "BANTAM 100" CARBONATOR

PACKS A REAL SALES PUNCH

Weights 28 lbs.

13½" long x 9½" wide x 12" high.



FULLY AUTOMATIC, delivers up to 100 gallons per hour of highly carbonated water... for a sparkling beverage that's a pleasure to serve and a double-pleasure to drink! Use with any type cooling system.

COMPACT, easy to handle! Little space required. Pump and motor, relay and carbonator assembled together for the simplest possible installation.

SAVES REAL MONEY, because of high-capacity operating efficiency, plus other cost-conserving features!

BIG ACTIVE MARKETS FOR YOU! Soda fountains, roadside stands and drive-ins, restaurants, bars and taverns, home recreation rooms and vending machines—they're all ready for Temprite's mighty power-packed "Bantam 100"!

Your Sales are the payoff

LA CROSSE
THE LINE THAT'S PROFIT DESIGNED FOR YOU

ICE CUBE MAKER 12 TRAY

ECONOMY PRE-COOLER

EXPORT OFFICE:
80 BROAD ST.
NEW YORK CITY
CABLE: EXIMPORT

LA CROSSE COOLER CO.
2001 LOSEY BLVD., SO.
LA CROSSE, WISCONSIN

LA CROSSE
AND LA CROSSE GIVES YOU MORE OF EVERYTHING YOUR CUSTOMERS WANT MOST IN COMMERCIAL REFRIGERATION EQUIPMENT

SELF CONTAINED BOTTLE COOLER

DIRECT DRAW

SELF CONTAINED BLUEBIRD

LA CROSSE
AUTOMATIC KUBER

Since 1929

Temprite
PRODUCTS CORPORATION
BIRMINGHAM, MICHIGAN



TEMPRITE PRODUCTS CORP.
P.O. Box 72-A
Birmingham, Michigan

☐ Send me data on the Temprite "Bantam 100" Carbonator.

☐ Ask your representative to call.

Name _____

Address _____ Zone _____

City _____ State _____

What's New (Cont.)



Honeywell Offers Plug-In Control for Dehumidifier

—KEY NO. C-634—

MINNEAPOLIS—A plug-in type humidity control that automatically regulates the operation of portable home dehumidifiers and can be "easily installed by anyone able to handle a screwdriver" is being introduced by Minneapolis-Honeywell Regulator Co.

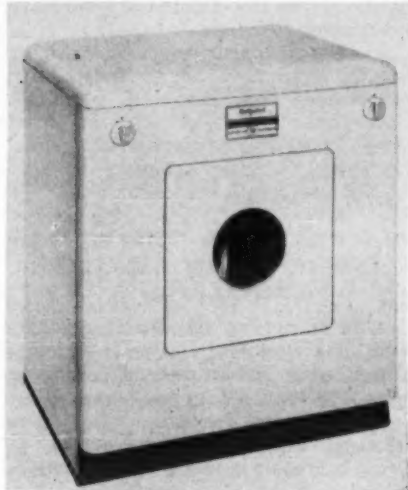
The instrument, which utilizes a human-hair sensing element, gives more accurate control of the humidity content in a house and at the same time reduces cost by eliminating unnecessary operation of the dehumidifier, the company said.

"It also makes for greater convenience, since the owner doesn't have to worry about turning the dehumidifier on and off or chasing up and down steps to do so if the dehumidifier is located in the basement, as many of them are," the company added.

In size and appearance, the new control resembles a room thermostat. It is equipped with a 6-ft. electric cord. To install it, the owner merely hangs the instrument on a wall, using a convenient template and two wood screws which also are provided, and plugs the cord into a wall socket.

The cord has a "series" plug with both male and female outlets. After the male outlet has been plugged into the wall socket, the electrical cord from the dehumidifier is plugged into the female outlet. The owner then sets the control for the desired humidity content and from there on the operation is completely automatic.

Air Blower Clothes Dryer Designed for Rural Areas



—KEY NO. C-635—

CHICAGO—In a move to give its dealers a complete home laundry line to reach all types of markets, Hotpoint Co. is introducing a new air blower clothes dryer, supplementing its exclusive "moistureless" machine which requires water connections.

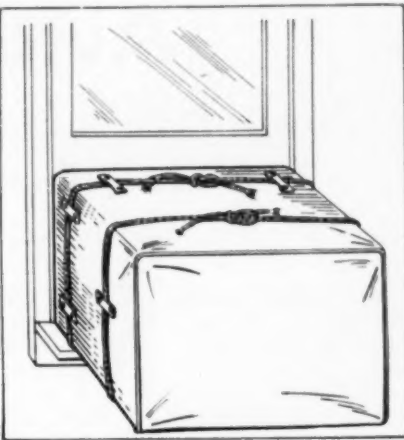
The new LD-7 air blower clothes dryer will be made available to dealers in rural markets because of the inadequacy of water pressure, John F. McDaniel, vice president, marketing, Hotpoint, said.

McDaniel said that such an addition will serve to give rural area dealers and other dealers too, a better rounded out line of appliances. They will be able to increase their dryer sales by being able to sell and serve both city and rural customers.

The new clothes dryers will be finished in Calgloss. On the front panel, left side, there is a triple temperature setting; low is 145°, medium is 167°, and high is 190°.

On the right hand side of the front panel there is an electrical timer which is set for 130 minutes, ample time for drying a normal and company prescribed load of wet clothes.

The new dryer can be wired for either 115 or 230 volts.



Room Conditioner Cover Is Offered by Irolite

—KEY NO. C-636—

NEW YORK CITY—An outdoor protective canvas covering for window-type room air conditioners is being manufactured by Irolite Finishing Co. here.

The cover is made of heavy duck material described as "waterproof, windproof, mildewproof, dustproof, and flameproof treated."

According to the company, the covering prevents dust and drafts from entering the room, cuts expenses on unit repairs, and eliminates the cost of removing the unit from the window for off-season storage.

The covers, which "can be put on in a few minutes from inside of the room," fit York, Philco, Carrier, Fedders, Mitchell, Frigidaire, and other makes. List price is \$6.95 plus installation. Covers are also available in sizes to fit any unit.



Spring-Loaded Knob Regulates Air Flow

—KEY NO. C-637—

HOUSTON, Texas—Regulation of air flow in heating and air conditioning systems is claimed to have been simplified by the introduction of a new device called the Wa-Trol Regulator, manufactured by the Wa-Trol Co., Houston.

By eliminating the use of wrenches, the flow of air can be adjusted in about half the time formerly required, it is said.

An indicator on the knob shows the position of the damper in the duct. Adjustment is made by pressing the knob and turning. When it is released, the spring-loaded knob locks in position.

This Summer go in for ROOF COOLING

(a good business)

It's profitable
It's easy

We furnish coolers and pipe plans for you. You install with your material as in your other business.

Ask for our literature; no obligation.

RUPPRIGHT'S ROTARY ROOF COOLER

Box 6795 n
Los Angeles 22, Calif.

IT'S A GEM!

Dealers and users are excited about Gem Refrigerators . . . custom features, competitively priced, by a maker 30 years in the business. It's a terrific deal!

Rich, New Territories Open. Write today!

GEM

REFRIGERATOR CO.

165 W. Wyoming Ave., Phila. 40, Pa.



... at long last!!

CLEAN CONDENSERS

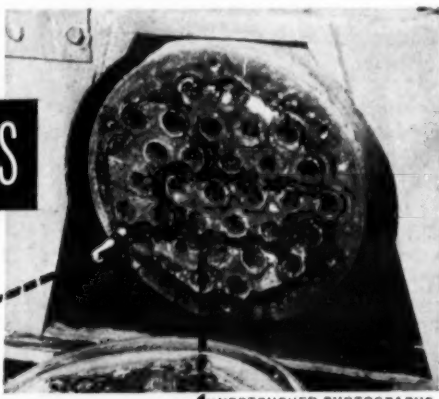
Without ACIDIZING OR RODDING!



AUGUST 5, 1952

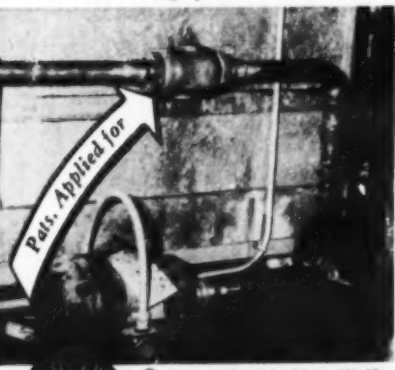
High Efficiency
Low Maintenance

Buchanan Refrigeration Service (of Redwood City) made the Broadway Market installation. Foreman's (of Belmont, Calif.) made the photographs.



The Broadway Market, in Redwood City (Calif.), is but one of many hundreds of amazing EVIS installations. All over the United States EVIS Water Conditioners are conquering scale in practically all types of refrigeration equipment. The top photograph was made at the time the EVIS was installed . . . a quarter-inch rod was driven through the tubes . . . two weeks later much of the scale was sufficiently soft to be prodded out with a small diameter tube . . . the condenser was not opened again for six months . . . the bottom photograph clearly shows what the EVIS had accomplished.

If EVIS Conditioners are not yet available in your locality . . . phone or write your nearest EVIS Regional Distributor for complete information.



FRANCHISED REGIONAL DISTRIBUTORS

WHITTIER (Calif.)
EVIS EVIS COMPANY
11110 E. Main St., Whittier, Calif. 92611

SAN BERNARDINO (Calif.)
EVIS EVIS COMPANY
11110 E. Main St., Whittier, Calif. 92611

SAN FRANCISCO
NORTH EVIS AGENCY
400 Market St., San Francisco 4, Calif.

RENO
WATER CONDITIONED SALES CORP.
Western Amer. Bldg., 234 N. 3rd St., Reno, Nev.

SEATTLE
EVIS NORTHWEST
2817 E. Marginal Way, Seattle 2, Wash.

CHICAGO
EVIS GREAT LAKES COMPANY
201 N. Wabash Ave., Chicago 1, Ill.

OMAHA
EVIS MIDWEST, INC.
1300 Dodge St., Omaha 2, Neb.

DALLAS
EVIS SOUTHWEST CO.
2817 Cherry Chase, Dallas 1, Tex.

ATLANTA
EVIS SOUTHEAST CO.
715 Spring St., N.W., Atlanta 2, Ga.

PHILADELPHIA
EVIS MIDEAST CO.
11110 E. Main St., Whittier, Calif. 92611

ALBANY (New York)
EVIS NORTHWEST CO.
11110 E. Main St., Whittier, Calif. 92611

EXCLUSIVE MARINE DIST.
MOORE EVIS CO., SAN FRANCISCO
400 Market St., San Francisco 4, Calif.

EVIS IS NOT A SOFTENER

10 TON 20 TON

NO WATER

needed for condensing

WITH THE UNICON

by **KRAMER**

Remote-Type Air-Cooled Condenser that eliminates all water problems! Any size compressor, regardless of tonnage, can be air-cooled with UNICON by KRAMER.

40 TON

Stands, hoods, and wind deflectors are available for simplified outside mounting.

WRITE FOR BULLETIN U-177-B

KRAMER TRENTON CO. • Trenton 5, N.J.

Bateman Heads Amer-Glas Air Conditioning Sales

LOUISVILLE, Ky. — Wallace B. Bateman, Jr., an employee of American Air Filter Co., Inc. here for the past six years, will head up the newly-formed air conditioning sales section of the AMER-glas sales division.

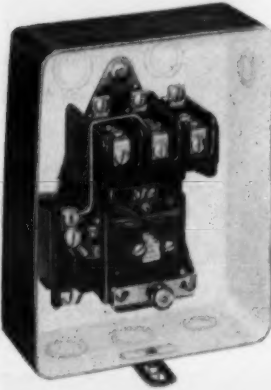
Bateman was named to the new post by F. Robert Walker, AMER-glas products department manager.

As head of air conditioning sales Bateman will have control of the

planning and sales contact with original equipment manufacturers and distributors handling air conditioning and all-weather units throughout the nation.

His six years of experience in the various sales departments of the company qualify him admirably for his new responsibilities, Walker said.

Prior to joining American Air Filter Co., Bateman attended the University of Missouri.



RUGGED and RELIABLE!

BULLETIN 709SP
Single Phase Across-the-Line Motor Starters

Do you need a single phase starter that can take it? The Bulletin 709SP solenoid starter is your answer. Its double break, silver alloy contacts never need cleaning or dressing. Its

simple, efficient mechanism will hold in during line voltage fluctuations. A starter you can install and forget! Write today. Allen-Bradley Co., 1313 S. First St., Milwaukee 4, Wisconsin.

ALLEN-BRADLEY

MOTOR CONTROL

Auto Air Conditioning

Chrysler Engineer Looks at Cooling from Car Manufacturers' Viewpoint, Discussing Cost, Markets, Design, and Personnel Education

By P. J. Kent, Executive Engineer, Chrysler Corp.*

Automobile cooling systems are coming into their own. Vehicle manufacturers who have done so much over the years with safety, better riding quality, economy, and durability, are preparing to meet the growing demand for the extension of automobile comfort provided in the cooling of car interiors.

In the last decade or more, several car manufacturers have been working on the development of an efficient and dependable cooling system. Chrysler Corp., for instance, offered a fine system even in 1939.

But the intervening World War, material shortages, and the job of filling the demand for automobiles since the war took all their attention.

In the interim, companies outside the vehicle manufacturers and their immediate subsidiaries carried on the pioneering effort. Their work, resulting in the offering of cooling systems direct to the public or through the automobile dealer, has stimulated the demand for this important adjunct to the automobile.

Many car makers are now preparing to offer car cooling systems which have been engineered and developed within their own organization.

*Presented before the Society of Automotive Engineers' national Passenger Car, Body, and Materials meeting, Detroit.

tions and which will be manufactured wholly or in part in their own plants or in the plants of subsidiary companies.

In this comparatively new field, the vehicle manufacturer is faced with many new problems and decisions. This paper will deal with some of these problems, although of course, the author makes no claim to having all of the answers.

HOW BROAD IS THE MARKET AND HOW FAST CAN IT BE DEVELOPED?

This is a very important question and the answer or the estimate which each manufacturer comes up with will have a very important bearing on the manufacturing space to be allowed, the type of tooling to be provided, the appropriation for advertising and sales promotion, etc.

We know that approximately 3,000 cars were equipped with car cooling before World War II and we estimate the number equipped since the war to be about 7,500. It must be appreciated however that these installations were sold under conditions as outlined in my introductory remarks without the benefit of national advertising or other strong promotion.

Many people have the feeling that there will be a limited market only in the Southwestern states where temperatures range above 100° F. over a considerable period of time. We believe this is a very false impression which comes about in part because most of the systems sold since World War II were produced by small companies located in the Southwest and with their limited facilities it was quite natural that they should primarily explore the market close to their base of operations.

ROOM COOLERS GIVE MARKET HINT

Experience with residential room coolers should give a pretty good clue to where the market exists for car cooling systems and it is no secret that the best market for room coolers is in the section near New York City.

I believe it is fair to say that geographically we have a good demand in practically all parts of the United States.

In the export fields a considerable part of our automobile market lies in countries which are quite warm during a good part of the year. It is also true that the people who buy the cars which we export are relatively wealthier than the people who buy them in the United States. I would therefore estimate a fairly good export market for car cooling.

In the early stages price will undoubtedly be the big factor in determining sales, assuming we are free of material controls. If the system is installed when the car is new it can be sold as a part of the vehicle on a time payment basis which should ease the situation.

What kind of people will want car cooling in their automobiles? Certainly many people in the hotter or warmer parts of the world. Salesmen, doctors, or others who spend a good part of their daylight hours on

the road and particularly where the cost can be charged off as a business expense. Anyone driving an automobile in the hot dry or warm humid parts of the world after once driving a cooled car will have the desire to own one. I believe there will be a good market from people who suffer from hay fever, asthma, and other respiratory diseases.

It is always dangerous to predict, yet I believe, barring all out war or depression, we should expect, within five to 10 years, that one out of every 10 new cars sold will be equipped with a passenger compartment cooling system.

TYPE OF TOOLING AND TOOL AMORTIZATION

The manner in which each manufacturer estimates his market, will of course have a considerable bearing on the type of tooling and the rate of amortization.

If he is very conservative he will keep tooling to a minimum by buying parts on the outside which are already tooled, doing a certain amount of hand work rather than create expensive dies, etc. He may find it advantageous to use more expensive materials which can be more economically fabricated in low production.

If he is optimistic about the market he will of course want to make as many parts as possible in his own plant and take advantage of more efficient tooling to keep the cost of each part low. Time element will also enter into many decisions about the type of process or tooling to use.

If he goes into car cooling with doubts about the extent and permanence of the market he will likely wish to amortize the tooling as quickly as possible.

Needless to say, the answers to the above questions will have a great deal to do with the price of the equipment and in turn the price will be a real factor in determining the market.

From a strictly competitive point of view price should not be too important in the choice of a car cooling system since in the early stages each manufacturer's equipment will only be adaptable to his own cars. However, it will still be very important when the prospective owner considers the over-all price of the car and cooling equipment.

COOLING SYSTEM PERFORMANCE REQUIREMENTS

The engineers' decision on just how much and what kind of performance to build into the car cooling system may very well determine the success or failure of the whole venture.

Our investigations of cooling systems which have been available in the past led to the conclusion that they could be improved. In drawing up our specifications at Chrysler we decided we should have 1½ tons ice melting capacity at 25 miles per hour and after extensive tests have revised this figure to 1¼ tons. This capacity is required for low speed operation and to get a quick cool down after

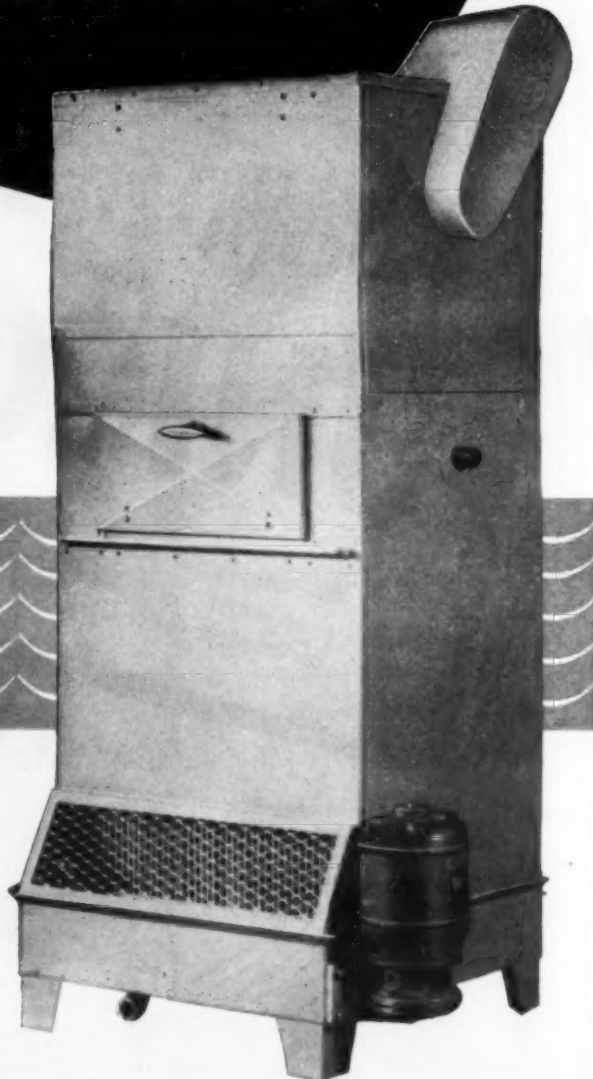
(Concluded on next page)

NEW! Marlo Thrift Tower

water cooling equipment

For Residential, Commercial and Industrial Use

- 2-16 Tons Capacity
- Induced Air... Quiet Operation
- Outdoor-Indoor Design



Available Now! Wire or write today for price and data sheets.

Send for new Bulletin CTM-1

Marlo

COIL COMPANY

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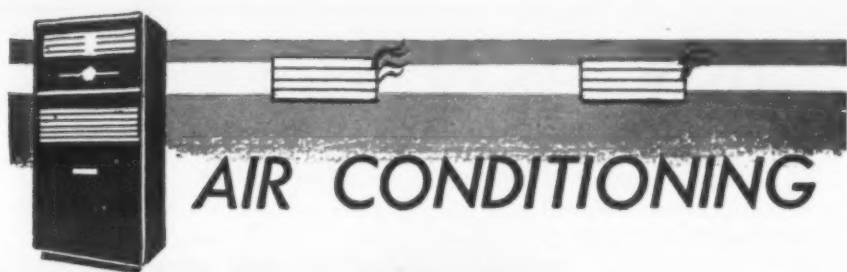
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Automobile Air Conditioning--

(Concluded from preceding page)

the automobile has been started. We also decided that it was essential to have about 25% outside air entering the evaporator unit for distribution into the passenger compartment to keep the car body free of objectionable odors due mainly to people smoking in the car. Outside air is also necessary to create a slight pressure in the car body to prevent infiltration of hot air and dust through the various leaks in the body structure. As a result, we have what is felt to be the highest capacity air

conditioning system yet disclosed for use in passenger automobiles.

We debated at some length on the controls which would be necessary for maximum passenger comfort and finally decided that the only control which should be readily available to the driver would be a very simple switch on the instrument board to cut off or give one of three speeds to the evaporator blower, thus controlling the velocity of cool air movement in the car. We have dampers accessible from the trunk compartment to close the outside air ducts

More Details on Chrysler Auto Cooling

DETROIT — Additional comments on the automobile air conditioning system employed in Dodge, DeSoto, and Chrysler cars were brought out when the Detroit ASRE section heard John T. Moren, Chrysler project engineer, review the paper P. J. Kent had given earlier before the SAE.

For example, Moren revealed that because the fan motor on the cooling system draws about 22 amps., "Chrysler has released at least a 50-amp. generator on all cars with air conditioning. This is quite an increase."

Moren also commented: "The problem of holding the refrigerant gas in a system without leaks is a new one for the automotive industry. They're beginning to appreciate how difficult it is now."

One ASRE member asked Moren, "Are refrigeration servicemen installing the units?"

At present, Moren said, the systems are being installed at the factory, but "I'd guess it will only be a matter of time until we'll be forced by dealers to go into field installation. Now we're trying to get the auto dealers to service the units themselves. My personal guess is that there'll be an alliance between auto dealers and refrigeration men to handle servicing. There are many

things like this which are up in the air at the present time."

Commented another: "The present air conditioning systems remind me of the early car radios which were made up of several components around the car. Now the car radio is a four-bolt package. Will air conditioning go this way?"

"It may very well do that," Moren answered, "and it is a direction that's being investigated. Perhaps there'll be a package in the trunk of the car. The problem here is that of providing a drive mechanism."

"Has there been any trouble with icing up of the coil?"

"Not yet, at least," Moren said, adding that the thermal bulb which controls the modulating by-pass valve in the system is connected to the coil by an aluminum strip so that the bulb can feel the coil temperature as well as the air temperature.

"Is it necessary to disconnect the air conditioning unit in winter?"

"This hasn't been necessary, but if the owner wished, the belts driving the compressor could be removed."

Questioned as to additional insulation for air conditioned cars, Moren said that no extra insulation is provided.

in the winter time. We also have an automatic valve in the evaporator unit which controls the minimum temperature of the system. A manual setting or adjustment for the automatic valve is accessible from the trunk compartment. Once this valve is adjusted it should require little further attention.

DESIGN PROBLEMS

The trend of automobile design in recent years has been to provide more space for the passengers and at the same time reduce the over-all size of the vehicle. At the same time the machinery and accessory equipment trend has been toward more complicated mechanisms which occupy more space.

This situation presents a very great problem to the engineer who has to fit an automobile cooling system into the remaining space, particularly in a company such as the Chrysler Corp. where we must work with numerous body types and with both V and vertical in-line engines. Needless to say, it called for much assistance and cooperation from the engine, the body and front end sheet metal designers with our electrical design department, also the engineers of our Fluid Dynamics Laboratory and the Airtemp Division with our Electrical Section, heating and air conditioning laboratory who have had the coordinating responsibility.

As time was not available to develop and tool a compressor to fit our specific requirements, we had to select one which was already tooled and of proven performance and durability. This meant a fairly large slow speed unit which added to our compressor drive problem. With the trend toward lower hoods there is a definite need for a smaller light weight compressor which can be safely driven at higher speeds, preferably somewhere between the engine and generator speed. Some means of controlling the compressor speed independent of the engine speed would also be desirable.

Another major problem was to find a location and a means of cooling a condenser large enough to provide for our 1 1/4 ton cooling capacity at 25 miles per hour without interfering with engine cooling.

The solution was found by splitting the condenser in two parts connected in series. About one-third is located in the conventional method in front of the car radiator. This takes care of the idling and low speed load. The remaining two-thirds of the condenser is mounted where the radiator dust pan is normally located. Air entering the radiator grille passes down and through the lower condenser in a volume which increases with car speed.

The evaporator unit is of necessity quite bulky but fits into that trunk space which is of least value for packing luggage.

By locating the return air grilles at the outer end of the package shelf, it was fairly simple to connect them with the outside air inlets and the blower intake.

The blower exhaust grille is located at the center of the package shelf and directs the cool air in a thin strata along the roof of the car body,

creating a minimum draft on the back of the passengers' heads. This natural distribution has proved very adequate and satisfactory even with five passengers in the car.

EDUCATION OF FACTORY AND SERVICE PERSONNEL

Since the installation and servicing of a mechanical vapor compression refrigeration system is new to the personnel of automobile factories, we decided to organize a school where the system and its various components could be studied in detail.

A class room in the Chrysler Institute of Engineering was set aside

for this purpose. The engineers who had participated in the development of the system were utilized as instructors. Each plant manager and chief engineer of the plants where the cooling systems would be installed were invited to send representatives to the school.

In addition, our engineers worked with each plant in making and testing their pilot installations.

It is not planned to make any field installations for the first year. However, as the dealers become familiar with the equipment and its servicing, some of the larger dealers may plan to install the cooling systems in their own shops.

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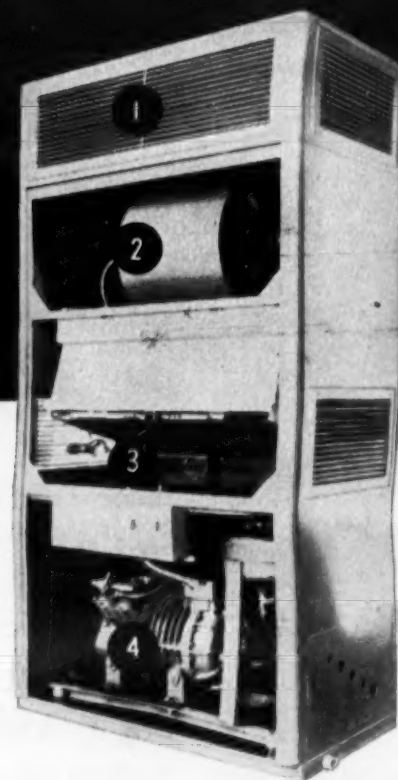
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These features cut installation and maintenance time costs:

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What is a Dryseal Pipe Thread?

Simply, it's a pipe thread that is specifically designed to insure a leak-proof connection without the use of sealing or luting compound.



Ordinary American Standard Pipe Thread Form

On an American Standard Taper Pipe Thread a spiral cavity occurs between the crest and the root of the thread. As shown, this void must be filled with a luting compound to insure a tight joint.

Why a Superior Dryseal Thread?

1. Now, with Superior Dryseal Pipe Threads, the crest and the root are flat, as shown here. The roots of the thread of one part have a wider flat surface and thereby crush the sharper crests of the mating part. There is no void left to form a leaking joint.

2. In addition, Superior Dryseal Pipe Threads insure a more positive seal because the length of the threads has been increased.

3. When lubricants are used with Superior Dryseal Pipe Threads, it is to insure against galling or binding of the mating parts.

Dryseal Pipe Thread Form



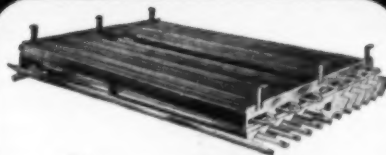
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Refrigeration Problems

and their solution

by Paul Reed

For Service and Installation Engineers



Paul Reed

Safety for Portable Tools & Appliances (1)

There is probably not a reader of these lines who has not known someone who was killed, permanently maimed or painfully injured by some sort of electrical device of the plug-in variety.

Many such injuries resulted directly from electric shock, some from burns, and some were caused indirectly by the shock—a fall from a ladder or into moving machinery as a result of instinctively jerking away when shocked.

We shall always have these with us to some extent as long as we have portable electrical tools and appliances, but the number of accidents from them could be reduced to a fraction of what they are now.

Take electrical shocks from plug-in equipment for example; they could be almost eliminated just by grounding the metallic outer shells or other conductive parts that might become "live."

Permanently connected machines,

light fixtures, or switches present very little hazard if they are kept in half-way decent condition. Why then are so many electric shock accidents caused by plug-in equipment? Why the difference?

The difference is simply that permanently wired equipment is so connected to the wiring system that any external metallic part that we might touch and which might also come into contact with a live connection is grounded and thus made harmless.

This is not universally true, but it is true in the vast majority of the cases; enough, in fact, that few permanently wired pieces of electrical equipment in public use present much hazard from electrical shock.

Take an electrical light fixture—a wall bracket or overhead light, for example. It usually has a metallic exterior that can easily transmit electricity, but if the fixture was originally wired properly—and nearly all were—we can touch those metal parts without danger. Even if an inside wire gets into contact with the metal bracket, there is still little danger.

THE GROUNDED NEUTRAL

The 110, 115, or 120-volt current

that is connected to that wall bracket is brought to it on two wires. One wire is the "hot" wire and the other is the "neutral." The neutral is grounded—outside at the transformer, and inside at the meter.

This neutral wire, being grounded, can be touched without danger. It is "dead." It can be easily identified; usually it is white.

The other of the two wires is the "hot" wire. It is not grounded; it is dangerous and should not be touched. It is usually black, either a solid black or black with a colored thread to help identify a particular circuit.

The neutral wire must be continuous from the grounded transformer, through the meter switch where it is again grounded, and on to the "shell side" of the lamp socket.

There must be no fuses, overload relay, switch, or other device that may open or be opened, in the neutral. This neutral wire must always offer a continuous, unbroken path back to the ground.

Fuses, switches, or other devices that may open or be opened, must be in the "hot" line. Thus, in the "entrance" switch at the meter, the neutral passes unbroken through the switch cabinet, by-passing the switch and fuse, which are in the "hot" line only.

The shell side of an electric light socket must be connected to the neutral. The shell side is the part of the socket into which the base of the lamp is screwed. It is nearest to the outside metal "shell" or case of the socket, although there is a sheet of insulation in between the screw base and the shell of the socket.

If something should happen to the insulation between them, and the screw base should touch the shell of the socket, the neutral would be in contact with the shell, so touching the screw base would still be harmless.

Electrical conduit (pipe), metal sheathing of cable, the metal fittings or boxes containing the switches, fuse blocks, or similar devices, are all grounded; so they too form a solid unbroken connection to the ground the same as the neutral wire.

Electricians know that nothing happens if the neutral is accidentally or deliberately touched to the conduit; but that we get a spark or hot arc if we touch the hot line to the conduit.

They trace and identify the hot wire and the neutral by touching one wire of a test lamp to the conduit and the other wire of the test lamp to each of the two wires. Nothing happens when the neutral is touched, for it is the ground side, the same as the conduit. But, when the test lamp is touched to the hot wire, the lamp lights, for it is then across the 110-volt circuit.

(To Be Continued)

Dobkin Electrical Supply Issues Midsummer Flyer

CHICAGO—A midsummer flyer on the electrical appliances, fans, and air conditioners it distributes was issued recently by the Dobkin Electrical Supply Co. here. Special emphasis is placed on fans and air conditioners.



Replacement controls got you in a dither? Why mess around with makeshifts . . . when you can get the right replacement in short order from your Ranco wholesaler. When you stop to think there's a Ranco control for more than 4,000 replacements . . . far more than any other manufacturer . . . you'll never use any other!



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New Ranco Supplement Bulletin No. 1466
Contains dozens of exact replacement controls not previously available from any source! See a copy at your Ranco wholesaler.



HOW TO APPLY VALVES

By A-P Controls Corp., Milwaukee

This is another in the series of articles devoted to problems of application involved in various types of control valves used in refrigeration and air conditioning. The series is based on excerpts from the "Product Application Manual" prepared by A-P Controls Corp. and is published with permission.

Thermostatic Expansion Valves (2)

LOCATION OF THERMAL BULB

Inasmuch as this expansion device meters liquid refrigerant to the evaporator to maintain a constant condition of superheat at evaporator outlet, the location of the valve's thermal bulb is of utmost importance.

It is the thermal bulb attached at the evaporator outlet which is sensitive to refrigerant gas temperature at that point and which in turn controls the valve opening to effect the proper rate of refrigerant flow. Any false temperatures which the thermal bulb may feel of course directly and adversely affect expansion valve operation.

Following are some of the important points relative to thermal bulb location:

1. Bulb location inside refrigerated space.

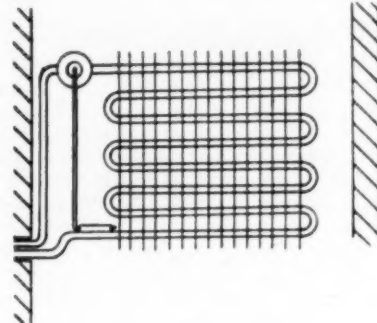
The logical place for expansion valve thermal bulb location is on the suction line at the evaporator outlet, but inside of the refrigerated space.

In this location, temperature difference between fixture temperature and refrigerant (evaporator) temperature is usually not great enough to adversely affect valve operation.

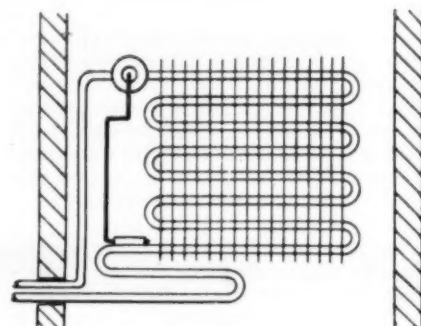
It is the temperature of the refrigerant gas in the suction line at the thermal bulb location to which the power element must respond, and ambient temperatures at the bulb location should be as close to suction temperatures as possible.

A very important item to be observed when locating the thermal bulb inside the refrigerated space is to attach the bulb to the evaporator outlet or suction line to allow approximately 1½ to 2 ft. of suction line between thermal bulb location and the point of exit of the line from the refrigerated space.

With this type of installation, conduction of heat along the suction line



INCORRECT



CORRECT

FIG. 3 shows incorrect and correct locations of thermal bulb of thermostatic expansion valve.

during the off phase of the refrigeration cycle will not proceed to the point where thermal bulb temperature is increased with resulting possible opening of the valve.

Suction line-frost back to the compressor at the start of the running phase of the cycle often results from such off cycle valve opening. This is an extremely important point and it is too often overlooked.

Correct and incorrect thermal bulb locations are shown in Fig. 3.

(To Be Continued)

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Water supply for air conditioning can cause you a lot of trouble. When there's a shortage; when rates are expensive or when sewage and piping are impractical—water becomes a real headache!

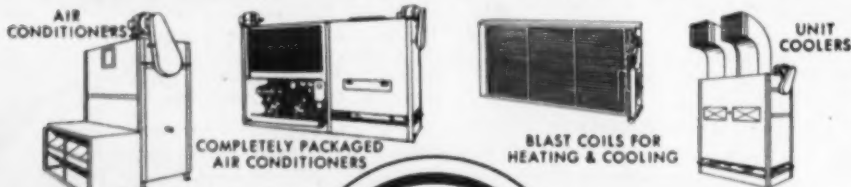
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WINNER OF THE FIRST Carrier Corp. national retail sales contest, George F. Brenan, (center) Jacksonville, Fla., gets the prize from William Bynum, (right) Carrier executive vice president, as Michael J. Kane, sales promotion manager for commercial refrigeration, and originator of the contest, looks on.

VICE PRESIDENT'S CUP, one of the contest awards, is presented to Vernon A. Kelly, (center) head of Florida Weathermakers, Jacksonville, by John M. Bickel, (left) vice president, Carrier dealer sales division. Mike Kane assists in the presentation.



Salesman Who Started This Year, Winner In Carrier's Sales Contest

SYRACUSE, N.Y. — Those who would say that there isn't much opportunity any more for a salesman selling refrigeration products wouldn't get much of a hearing from George Brenan, who has just been awarded the \$1,000 first prize in the first national retail sales contest conducted by Carrier Corp.

The contest was based on sales of automatic icemakers. It began on Feb. 16 of this year. Brenan had joined Florida Weathermakers, Jacksonville, Fla. Carrier distributors the week before, and didn't even have an idea of what an icemaker looked like until the contest began.

Yet he tied for third place in the "qualifying" part of the contest, and then sold a total of 38 sales in the big race, to nose out Doug Averitt of Memphis, Tenn. who sold 35 units.

Brenan, one-time football player at the University of Florida, had been in the insurance business for many years. About 18 months ago he suffered a broken back which hospitalized him for nearly a year. After his recovery, he wanted to enter a new field so he joined Florida Weathermakers.

Brenan said he made many of his sales by pounding away at not only the convenience, but the savings afforded by the installation of automatic icemakers, with costs of 15 cents per hundred for ice cubes from an icemaker, as compared with a figure many times that for purchased ice.

The contest was the idea of Michael J. Kane, sales promotion manager of commercial refrigeration and icemakers for Carrier. Kane said a similar contest is planned next year, with regional, district, and branch prizes to be awarded along with the national prize.

William Bynum, Carrier executive vice president, presented the award to Brenan in ceremonies at which L. M. Beals, director of advertising and sales promotion, acted as master of ceremonies.

Air Conditioning Approved For Governor's Mansion

RICHMOND, Va. — When Gov. Battle's term expires in 1954, he will leave behind him a major improvement to the chief executive's mansion—a central air conditioning system.

David V. Chapman, superintendent of buildings and grounds at the Capitol, announced that bids have been opened on the projected improvements. Installation will be completed within six weeks.



Kelvinator Freezer --

(Concluded from Page 1, Column 4) mounted design that is claimed to assure "extra-quiet" operation.

A special high-speed freezing section is separated from the frozen food storage compartment by a metal grid. The storing of packaged foods is facilitated by two large storage baskets of plated steel wire, with space underneath for bulk packages.

Model FR-7D with its food capacity of 245 lbs. replaces the 6-cu. ft. model of 210-lb. capacity in the line that now includes four chest-type freezers and one upright model.

The new freezer is 36 in. in over-all height, 39 in. wide, and 25 1/4 in. deep.

G-E Expansion --

(Concluded from Page 1, Column 2) to Trenton will occupy a 300,000-sq. ft. G-E plant there which currently houses the company's home laundry department.

Latter department is being moved to a centralized location in Louisville. This department is scheduled to stop production July 31 and vacate shortly thereafter.

Then the home heating and cooling department will move in and start the necessary retooling so that production can begin by the end of the year, according to F. J. Levine, general manager of the department.

Marley Moves Its Houston Sales Office; Maze Mgr.

KANSAS CITY, Mo.—A change of address and a new manager for its Houston, Texas sales office are announced by The Marley Co., manufacturer of cooling towers and water cooling equipment.

To give necessary space for the expanding Houston plant, the Marley sales office has been moved from the plant to a separate office at 1601 Commerce building in downtown Houston, "a more central location which will afford closer contact with local customers."

Roy W. Maze has been appointed manager of this sales office. Maze joined Marley in 1946 as advertising manager. In 1950 he was promoted to managership of the Merchandising Sales Dept.

Maze received his B.S. degree in mathematics and physics from the College of Emporia and his Masters degree from Kansas State college.

Philco Lines, Plans --

(Concluded from Page 1, Column 5)

The new 30-in. electric range model has a newly-designed work surface which is the same width as those on 40-in. ranges. The large work area is made possible by the L-shaped arrangement of the four surface units. The 8-in. surface unit is at the left front, and the three 6-in. surface units are along the back of the range platform.

This, it is said, makes it possible for the user to use the work surface for large pots and pans, and to rest the broiler pan when removing it from the oven. Oven measures 23 in. wide, 18 in. deep, and 16 in. high, is equipped with the Philco "broil-under-glass" broiler. Suggested list price is \$249.95.

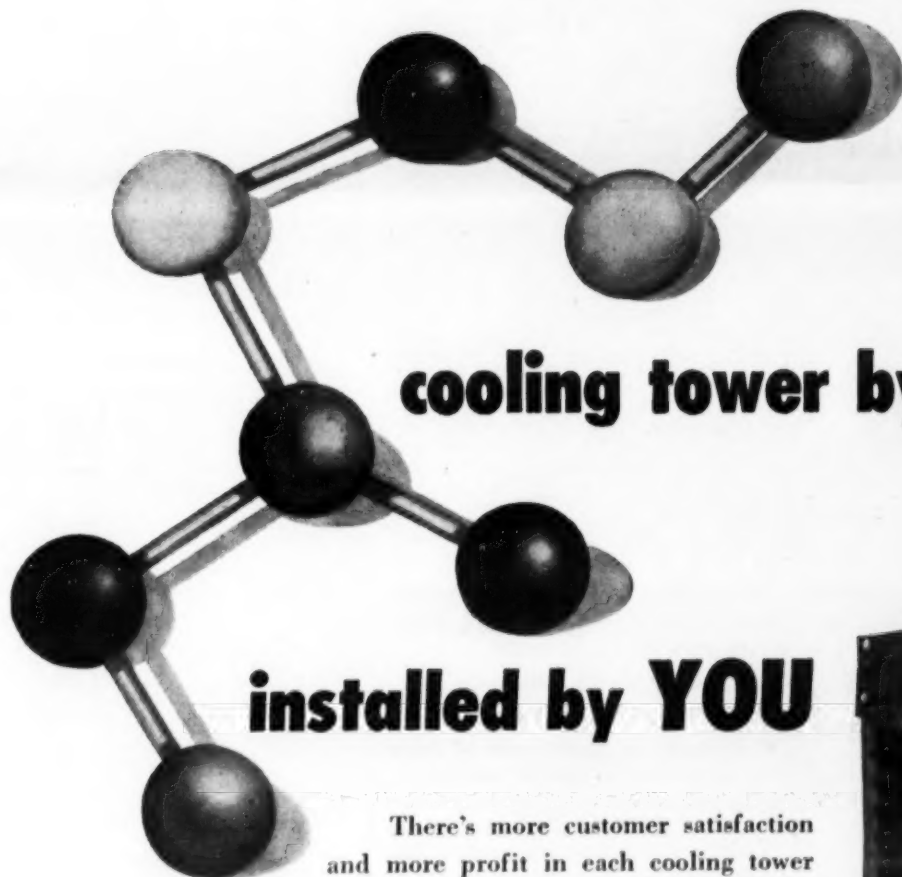
Included in the new radio and TV lines are new "Phonorama" models which incorporate high fidelity sound reproduction systems. These custom designed high fidelity components with specially proportioned sound chamber are included in both radio-phonograph and television-radio-phonograph models in the "Phonorama" line. New large size TV models include six models in the 24-in. screen size, and one 27-in. model.

Keith Represents Carrier

BIRMINGHAM, Ala.—W. H. (Bill) Keith has been employed by Shook & Fletcher Supply Co., Carrier distributors, as a new sales representative in South Alabama.

Mr. Keith holds an engineering degree from Alabama Polytechnic Institute, and has wide experience in air conditioning work.

Formula for complete customer satisfaction:



cooling tower by MARLEY

installed by YOU

There's more customer satisfaction and more profit in each cooling tower sale when you team up with Marley, world's leading producer of water cooling equipment.

The sale itself is easier — for Marley is the best known and most widely advertised name in cooling towers. Installation is no problem, because Marley designs and packages its towers to make your job as easy as possible. And the performance record of Marley Aquatowers* and natural draft towers over the years, in every type of service, is your assurance of lasting, trouble-free performance for your customers.

Easy to sell . . . simple to install . . . sure to satisfy — these are the advantages of linking your good name with that of the Marley Company this year. And this is the year when these advantages are most important, for 1953 will be your busiest year!

*Reg. Trademark

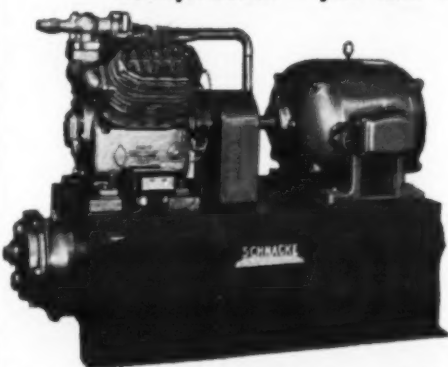
The Marley Company

Kansas City, Missouri



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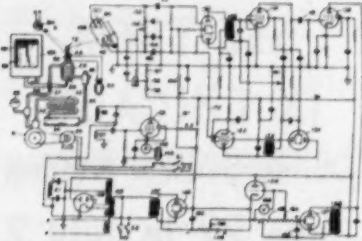
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Evansville, Ind.

PATENTS

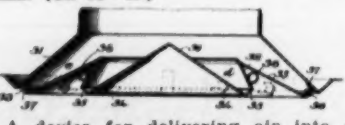
Week of January 6
(concluded)

2,624,195. DEW POINT HYGROMETER. De Witt T. Van Allen, Delavan, Wis., assignor to The George W. Borg Corp., Chicago, Ill., a corporation of Delaware. Application Oct. 25, 1946, Serial No. 705,689. 22 Claims. (Cl. 73-17.)



12. In a dew point hygrometer, an element having a light reflecting surface, means for cooling said element to cause dew to be deposited on said surface, means including an oscillator for heating said surface, said oscillator including a space discharge device having a screen grid, a second space discharge device constituting a control tube, a source of anode current for said device, a resistor connected between the cathode of said control tube and the negative terminal of said source, a conductor extending from said screen grid to the junction of said resistor and said cathode, whereby said oscillator is rendered inoperative by the negative potential at said junction when no anode current is flowing in said control tube, means responsive to a reduction in the light reflected from said surface by deposit of dew thereon for causing anode current to flow in said control tube to thereby raise the potential at said junction and start said oscillator.

2,624,362. DEVICE FOR DELIVERING AIR INTO ENCLOSURES. Leonard E. Phillips, Teaneck, N. J., assignor to Anemostat Corp. of America, New York, N. Y., a corporation of Delaware. Application June 10, 1947, Serial No. 753,760. 3 Claims. (Cl. 98-40.)



2. A device for delivering air into an enclosure, said device comprising means



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Need someone to spark your sales force, or solve your service and field engineering problems? My more than 20 years experience in the branch Sales & Service Departments of such leaders as Norge, Frigidaire, Kelvinator and Copeland—and operation of own refrigeration service organization—may be just what you need. Accredited Refrigeration Engineer—graduate of Chicago Engineering Institute. Granted 16 refrigeration patents. 41 years young. Will travel anywhere. Let's talk it over at your convenience.

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Street

City

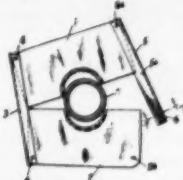
Zone

State

6-15-53

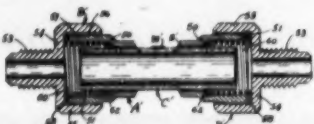
two gaskets to augment the pressure of the springs thereon.

2,624,555. CLAMP-ON RADIATION FIN. Casey Di Vincenzo, East Cleveland, Ohio. Application March 17, 1950, Serial No. 150,175. 2 Claims. (Cl. 257-262.16.)



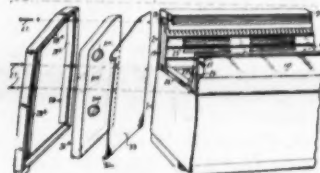
1. A fin unit for tube radiation purposes, comprising normally connected complementary plate sections of relatively large area disposed in the same plane to form a plate-like fin body and having adjacent cut-out edge portions to fit against opposite portions of a tube to which the unit may be applied, said sections being formed with lateral conduction projections offsetting from the cut-out edge portions and adapted to lie against the side portions of a tube on moving the plate sections together, a connecting strap pivotally connected at its opposite ends to the plate sections at corresponding adjacent ends thereof to normally connect the sections together, and locking means to lock together the opposite corresponding ends of the said sections comprising a connecting strap pivotally attached to one of the sections and having interlocking connection with the other of the sections.

2,624,306. LIQUID FLOW INDICATOR. Albert Wittlin, Chicago, Ill. Application Aug. 21, 1948, Serial No. 45,533. 6 Claims. (Cl. 116-117.)



1. For use in the pipeline of a closed circulatory fluid system to show the rate of flow and the condition of the fluid, a liquid indicator designed to be located in said pipeline and having a straight liquid passage through which all the liquid of the system passes and which is devoid of turns, constrictions and obstructions offering resistance to the free flow of liquid through the indicator, said liquid indicator comprising a windowed tubular housing having a pair of outwardly slanted shoulders each in connection with an outer end portion defining an enlarged chamber interiorly thereof, a transparent cylinder coaxially positioned within the tubular housing in spaced relation thereto and having portions exposed exteriorly of the housing at the windows thereof and extending at opposite ends into the enlarged chambers but short of the outer ends thereof and forming passages around the ends of the transparent cylinder within the enlarged chambers for the passage of fluid under pressure, a pair of resilient gaskets surrounding the cylinder one adjacent each slanted shoulder, a pair of coiled springs one within each of the two chambers surrounding the cylinder and each spring in engagement at its inner end with one of the resilient gaskets, and a pair of heads interposed in the fluid system in screw-threaded connection with the tubular housing one at each end thereof and each in engagement to place the spring under compression for exerting an inwardly directed axial pressure against the gasket to displace the same laterally against the cylinder and partially into the space between the cylinder and the housing to provide a floating mounting for the cylinder, the liquid passing through the indicator being free to pass around the cylinder ends to enter both chambers to exert pressure on the

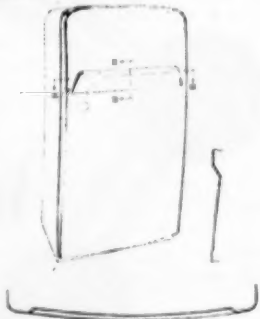
2,624,649. SECTIONAL REFRIGERATED DISPLAY CASE. David J. Greiling, Kendallville, Ind., assignor to McCray Refrigerator Co., Inc., Kendallville, Ind., a corporation of Indiana. Application April 13, 1950, Serial No. 155,735. 3 Claims. (Cl. 312-107.)



1. A refrigerated display case having an upper display compartment open at least at one end of the case, and an end member for attaching to the open end of the case to close the open end of said compartment, said member comprising a frame of a shape corresponding to the end shape of the case, a panel plate closing the outer side of said frame, an insulation batt disposed within the frame and against the inner side of said panel and comprising upper, lower and intermediate sections of insulation material with the intermediate member and positioned to extend across the lower marginal edge wall portion of the display compartment open end, a closure plate attached to the frame at its inner side and retaining said batt in position therein, means for releasably attaching the end member to the case end in closing relation to the display compartment end, and means for insulatingly sealing said closure plate at its exposed side relative to the end member against the case end marginally of the open compartment end and having a portion opposed to said intermediate batt section.

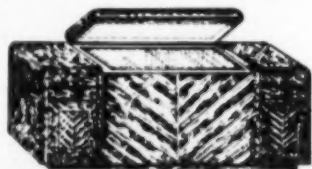
DESIGNS

168,563. REFRIGERATOR CABINET. Peter Muller-Munk, Pittsburgh, Pa., assignor to Westinghouse Electric Corp., a corporation of Delaware. Application Feb. 5, 1952, Serial No. 18,396. Term of patent 14 years. (Cl. D67-3.)



The ornamental design for a refrigerator cabinet, substantially as shown and described.

168,603. COMBINATION FREEZER AND BUFFET UNIT. Marian M. Tell, Vallejo, Calif. Application Oct. 21, 1953, Serial No. 21,915. Term of patent 14 years. (Cl. D33-13.)



The ornamental design for a combination freezer and buffet unit, as shown.

Week of January 13

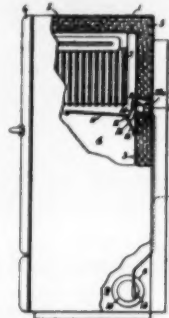
2,625,291. REFRIGERATOR CONSTRUCTION. Robert E. Moore, Whittier, Calif., assignor to Amana Refrigeration, Inc., Amana, Iowa, a corporation of Iowa. Application November 27, 1950, Serial No. 197,786. 3 Claims. (Cl. 220-15.)



1. In a refrigerator construction, a cabinet having a wall structure including an outer shell and an inner liner with insulation therebetween, said cabinet having an opening to its interior, said outer shell and inner liner terminating in respective edges surrounding said opening, and a breaker strip extending between

said edges, channel means on each of said edges of said shell and liner, each channel means opening in the same direction, a sealing strip secured in the channel means on said outer shell, a laterally extending projection on said breaker strip, one edge of said breaker strip being inserted between said projection and an element of the outer shell channel, said projection being flexible to afford insertion of one edge of the breaker strip and to bias the breaker strip toward said outer shell channel to retain said one edge in position, a bead formed adjacent the opposite edge of said breaker strip, a resilient sealing strip fitted on said bead, said bead and the sealing strip thereon being inserted into the channel means on said liner, said channel means on said liner having an open side of less dimension than its interior to resiliently retain said bead and the sealing strip in position.

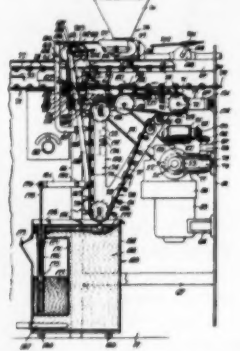
2,625,017. REFRIGERATOR AIR CIRCULATION CONTROL. John B. Tucker, Marblehead, Mass., assignor to General Electric Company, a corporation of New York. Application December 12, 1950, Serial No. 200,383. 6 Claims. (Cl. 62-3.)



1. A refrigerator including a refrigerating unit, a food storage compartment and a cooling unit for said compartment, means

within said compartment defining a passage for air circulating over said cooling unit and through said compartment, means for controlling flow of air through said passage, and means responsive to the temperature of said refrigerating unit for controlling the position of said air controlling means.

2,625,120. AUTOMATIC FROZEN CONFECTION MAKING APPARATUS. Robert F. Eddy and Allan P. Eddy, San Marino, Calif. Application July 1, 1950, Serial No. 171,618. 31 Claims. (Cl. 107-8.)



1. In a machine for harvesting frozen products, in combination, an endless main conveyor having a plurality of open-top molds for frozen products, said conveyor operating with its molds up-right during the filling operation and with its molds inverted during the removing operation, an endless second conveyor operating in synchronism with said main conveyor adjacent the inverted molds thereof, said second conveyor having engaging devices aligned with the inverted molds on the main conveyor, and means for breaking the bond between the products and their respective molds whereby they are freed for removal by the engaging devices of the second conveyor.

(To Be Continued)

CLASSIFIED ADVERTISING

RATES for "Positions Wanted" \$5.00 per insertion. Limit 50 words. 10¢ per word over 50.

RATES for all other classifications \$7.50 per insertion. Limit 50 words. 15¢ per word over 50.

ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other addresses by actual word count. Please send payment with order.

POSITIONS WANTED

VERSATILE SALES representative for service manager. Need someone to spark your sales force, or solve your service and field engineering problems? My more than 20 years' experience in the branch sales and service departments of such leaders as Norge, Frigidaire, Kelvinator, and Copeland—and operation of own refrigeration service organization—may be just what you need. Accredited Refrigeration Engineer—graduate of Chicago Engineering Institute. Granted 16 refrigeration patents. 41 years young. Will travel anywhere. Let's talk it over at your convenience. **LOUIS L. FEENEY**, 1827 So. Bronson Ave., Los Angeles 19, Calif. Phone REpublic 3-6322.

SUCCESSFUL, 26-year-old sales engineer desires sales position with manufacturer of refrigeration and/or air conditioning equipment. Am now located in New York area. Will travel or relocate. BOX 4324. Air Conditioning & Refrigeration News.

SERVICE AND erection engineer—15 years' experience York commercial-industrial refrigeration and air conditioning installation and service. Had 3 years at State University; completed course Utilities Engineering Institute, Chicago, in thirties; graduate York Institute, York, Pa.; course in electric and oxyacetylene welding; taught electricity, refrigeration and air conditioning for year at state trade school. Was service manager for one of largest distributors in Southeast. Read blue prints. For two years was shakedown man and certified maintenance inspector for large chain of cotton mills. Have been in certified maintenance for past ten years. Use all test instruments used in balancing out air and humidity control work. Expert on controls, electric as well as pneumatic. Desire change to different section of United States. Please state proposition in first letter. BOX 4326. Air Conditioning & Refrigeration News.

EXPORT AGENT for well-known manufacturer commercial and industrial refrigeration and air conditioning equipment desires to add line window sill and console type air conditioners. Seeks exclusive representation under manufacturer's name or private brand. Also interested in allied lines to supplement equipment now handled. BOX 4327. Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

ACME INDUSTRIES, Inc., Jackson, Michigan has openings for sales engineers in both home and regional offices. Prefer mechanical engineering or electrical engineering background with some field experience. If you are dissatisfied and seek a real opportunity with a progressive organization, submit a complete resume to director of personnel, 600 North Mechanic Street, Jackson, Michigan. Confidences fully respected.

DETROIT REFRIGERATION Jobber requires an experienced counter man. If you have the experience we will pay you top wages. Excellent working conditions. Replies will be held strictly confidential. State full details on experience and availability. BOX 4321. Air Conditioning & Refrigeration News.

PURCHASING AGENT, air conditioning. National manufacturer located New York City seeks top-level man to assume full charge of purchasing department in the manufacture of room air conditioning units. Unusual opportunity for man experienced purchasing refrigeration equipment. BOX 4323. Air Conditioning & Refrigeration News.

EQUIPMENT WANTED

WE ARE in the market for 1500 old 145 lb. Freon cylinders with valve & cap intact. Convert useless inventory to cash. Write **EVERGREEN INDUSTRIES**, 630 Colonial Ave., Pelham Manor, N. Y.

EQUIPMENT FOR SALE

28 NEW Marlo FUA875 lowside coils, copper tubes and fins, complete with valve, heat exchanger, and connections. 59" x 30" x 26". Priced very low. **RAY CALLAND**, West Liberty, Rhode Island. Phone H-72.

BRAND NEW, latest model compressors up to 5 hp. at tremendous savings! Sealed units—1/4 hp. @ \$45; 1/2 hp. @ \$55; 3/4 hp. @ \$70. Model S64 1/4 hp. domes (motor compressor assemblies) @ \$33. Also 1/2 hp. DC and 25 cycle AC open-type. Quantities limited, so act now! **MANN REFRIGERATION SUPPLY CO.**, 440 Lafayette St., New York City. Gramercy 3-8000.

CARRIER COMPRESSOR, model 7G8, 40, 50, or 60 hp. In original crate with 40-hp. pulley, flywheel and belts. Price \$1,950.00. **PARAMOUNT REFRIGERATION**, 275 Woodbridge Avenue, Highland Park, N. J. Charter 7-5057.

ATTENTION SERVICEMEN—Send for our 1953 Catalog. Relays, expansion valves, controls, dehydrators, V belts, open & hermetic units. All new merchandise at great savings up to 50%. Sold on Money Back Guarantee. **WALTER W. STARR REFRIGERATION**, 2833 Lincoln Ave., Chicago 13, Illinois.

FRANCHISES WANTED

MANUFACTURER'S AGENT wants lines of reputable equipment. Will give your product the representation it needs. Operating out of Jacksonville and covering any or all of Florida, Georgia, and Alabama. Engineer, experienced in design, estimating and contracting of air conditioning, heating, ventilating, process piping and plumbing. Has directed large sales force and has had own mechanical contracting company. Write BOX 4313. Air Conditioning & Refrigeration News.

BUSINESS OPPORTUNITIES

PROFITABLE COMMERCIAL refrigeration business in one of California's best territories. 3-county franchise for large market equipment manufacturer. Net averages 16% to 21%. Normal annual net \$15,000.00. Sell inventory and equipment approximately \$20,000.00 cash. Will help new owner to establish. Write R. GRANNING, 1537 D St., San Bernardino, Calif.

FOR SALE—Good going refrigeration sales and service business, home combined. No overhead. \$10-\$15,000 yearly average. Lovely 6 large rooms and laundry, gas heat, knotty pine breezeway 20' x 28' equipped shop, garage, and truck. 115' x 125' landscaped lot. Price of business if sold separately \$5,000. Together, \$27,000. Call or write **PETE KALATA**, Warren Avenue, Downers Grove, Illinois.

PROFITABLE APPLIANCE business. Established 1933. \$375,000 yearly volume. \$38,000 net profit. Leading franchisees: Frigidaire, RCA, Zenith, Crosley, Hoover, etc. Also Pyrofax gas franchise. New store building and repair shop. 2-year-old warehouse 65' x 85'. Owner's home and 3 income producing apartments. Owner selling because of ill health. Estimate inventory \$50,000. Complete sale price \$105,500. Terms \$30,000 down on mortgage at 5% through owner. One of New England's outstanding appliance businesses located in trading area having one of the highest per capita income in New England. Books and income tax returns open for inspection. Write for complete details. BOX 4325. Air Conditioning & Refrigeration News.

Government Contracts

PROCUREMENT INFORMATION

The following is a list of proposed procurements issued by the various indicated U. S. Government procurement offices. This list is compiled and made available daily on a free pick-up basis. Prospective bidders may obtain complete bid sets by a request to the purchasing officer under which the purchase is listed in this Synopsis. Be sure to identify completely the bid invitation you wish by including in your request the item description, the invitation number or reference number and the opening date. This will save time in filling your request. For reasons of economy, specifications are normally not included with the bid invitations unless the specification is a new one. First time bidders on a particular item should request a copy of applicable specifications and drawings at the time the request for a bid is made.

It is not necessary to refer solely to the issuing office for additional data on a bid invitation issued by any of the following U. S. Army Ordnance Offices: Ordnance Tank Automotive Center; Detroit Arsenal; Frankford Arsenal; Picatinny Arsenal; Raritan Arsenal; Ordnance Ammunition Center, Joliet, Ill.; Rock Island Arsenal; Springfield Armory; Watertown Arsenal; and Watervliet Arsenal. Complete information on any purchase listed by any of these offices alone can be obtained from the Ordnance District Office nearest you. Its address is on file in your nearest Department of Commerce Field Office. Do not ask an Ordnance District Office for information on a purchase unless it is listed by one of the above-named offices. Ordnance District Offices do not have information on any other purchases. Invitations for Bids numbers will be followed by the letter "B." Requests for proposals or quotations will be indicated in this column by the letter "Q" or, if numbered, the number will be followed by the letter "Q."

DEPARTMENT OF DEFENSE

Description	Quantity	Invitation No.	Opening Date
Director of Procurement & Production, Wilkins Air Force Depot, Shelby, Ohio			
Invitation for Bid (B) and Requests for Proposal (Q) are distributed to forms listed in the Air Force Bidders List. Specifications and drawings are available at the nearest Air Force Regional Office for EXAMINATION ONLY by prospective bidders, pending their inclusion in the Bidders List. Bidders may apply at the nearest Air Force Regional Office for placement in the Air Force Bidders List.			
Air Conditioner Freon cycle 4 ton refrigerant cap gasoline eng driven type A3 IAW Spec. MIL-A-7647, dtd. 8 Apr. 53	110	(33-602-53-3277Q) Prime Class	15 Jun 53
Air Conditioner Freon cycle 4 ton refrigerant cap gasoline eng driven type A3 IAW Exhibit DCEEF-232 dtd. 1 May 51, Items 2, 4, 5 and 6 spare parts engineering data and main data Amend 1 to 33-602-53-3277Q Prime Class reads as follows "A ref made in item 3 to Exhibit DCEEF-232 is deleted and spec. MIL-A-7647 (USAF) dtd. 8 April 1953 is inserted in lieu thereof".	6	(33-602-53-3277Q) Prime Class	15 Jun 53
District Public Works Office, Eleventh Naval District, San Diego, California			
Air Condition shop area Bldg., Nr. 139 Ned Elliott Annex, S. Diego, Calif.	Job	38956	17 Jun 53
Commanding General, Jeffersonville Quartermaster Depot, Jeffersonville, Indiana, Purchasing Division			
Components whose refrigerator prefab.	Various	53-157B	22 Jun 53
District Public Works Office, Sixth Naval District, Naval Base, Charleston, South Carolina			
Air Conditioning Bldg., 55 Nas. Seaplane Base, Key West, Fla.	Job	37844B	25 Jun 53
Director of Procurement, Air Proving Ground Command, Eglin Air Force Base, Florida			
Furnishing of all labor materials and equipment necessary for the installation of Mechanical Ventilation in 14 buildings at Eglin Air Force Base, Fla.	Job	(08-603-53-186B)	17 Jun 53
Directorate of Production and Procurement, Ogden Air Materiel Area, Hill Air Force Base, Utah			
Duct system materials compl. fiberglass Mat impregnated and bonded W/Polyester	1 ea.	191B	18 Jun 53

Pittsburgh Corning Names Yost to Engineering Post

PITTSBURGH—Francis A. Yost has been appointed construction engineer for Pittsburgh Corning Corp. Yost will act as a construction consultant, with emphasis on cold storage work. This is a special service offered by Pittsburgh Corning to applicators who are using "Foamglas" insulation. Yost has had about 20 years of general engineering background. He was formerly plant engineer for the Fried & Reineman Packing Co.

FREE! WRITE NOW FOR OUR NEW BIG EQUIPMENT CATALOGUE!!

HUNDREDS OF ITEMS...

- BEER & SODA SYSTEMS
- WALK-IN BOXES
- REACH-IN BOXES
- DAIRY & BEVERAGE WALL CASES
- FREEZERS, Upright, Chest
- STAINLESS STEEL EQUIPMENT
- KITCHEN & TAVERN SINKS
- BOTTLE COOLERS
- ICE CUBE MAKERS
- AIR CONDITIONING

GET THE HABIT, IT WILL PAY TO CALL

FRIGITEMP CORP.

931 BERGEN ST. BROOKLYN, N. Y. MAin 7-9093

USED ICE PLANT EQUIPMENT

- 2—Ammonia Compressors, Frick, Double Action, 10½" x 18" J. T., 140 Ton capacity, 22 lbs. PSI Suction, 185 Lbs. PSI Discharge; directly connected to GE 225 HP, 2300 volt, 2 phase, 180 RPM, 60 cycle motor; with control panel and Motor Generator Set.
- 2—Water Coolers, Vilter; Shell & Tube 12-Pass, 24" Dia. x 12'-0" Long, 156-1¼" Tubes, 612 S. F. of surface; with 12" x 10'-8" Suction Accumulator, Ammonia Float, stop & drain valves; with pipe "S" Type Stand for Vertical Mounting.
- 5—Packice Machines, Vilter, 6-Section, Spray Type, with Horizontal Accumulators, Complete with connections & Piping; Louis-Allis 5 HP Motor; with Briquette Press for #1-16 Briquettes.

ALLSTATES CONSTRUCTORS, INC.

P. O. BOX 658, AUGUSTA, GA.

PHONE—COUNTY 5300

resins which is resistant to plating solutions, as per dwgs x 53TOGD764-Coml W/ Sufficient resin accelerator glass fiber & Inst. for assay.

Purchasing & Contracting Office, Nellis Air Force Base, Nevada
Rehabilitation of hospital heating plant includes plant, labor and materials.
Supply Department, Puget Sound Naval Shipyard, Bremerton, Washington
Air conditioning plants 3.8 12 ea. 819-53B 1 Jul 53
ton capacity type II Class 2
Spec. Mil. R. 16743A.

GENERAL SERVICES ADMINISTRATION

General Services Administration, Business Service Center, 1114 Commerce St., Dallas, Texas
Big Spring, Texas, Post Office Job CR-753-421 16 Jun 53
evaporative coolers for workroom.

Business Service Center, General Services Administration, Region 5, 573 U.S. Courthouse, 215 S. Clark St., Chicago, Ill.
Chicago, Ill. U.S.P.O. Job C & R 824 19 Jun 53
changes to second floor ventilating ductwork.
Refrigerators:
F. W. Spec. AA-R-211C 75 ea. CHD-1042 25 Jun 53
1 ea. CHD-1042 25 Jun 53
Spec. T-VA-4300C.

Business Service Center, General Services Administration, 50 Whitehall St., S.W., Atlanta, Georgia
Electric wiring and air conditioning, etc. Haverty Bldg., 317 Main St., Jacksonville, Fla. Job CR 4-499 24 Jun 53

Business Service Center, Region 6, General Services Administration, 1800 Federal Office Bldg., Kansas City 6, Missouri
Fans, electric (air circulators) 50 ea. (2LA-KC-28394) 22 Jun 53
2 speed, 2 items.

U. S. POST OFFICE DEPARTMENT

Air Conditioning Units 45 ea. 3487 15 Jun 53

NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

National Advisory Committee for Aeronautics, Lewis Flight Propulsion Laboratory, 21000 Brookpark Rd., Cleveland, Ohio
Gas Compressed for Refrigeration—Yearly Basis—
Dichlorodifluoromethane—240,000 lbs. C 3966 24 Jun 53
F 12
Dichlorotetrafluoroethane—21,600 lbs.
F 114.

Chemicals for Refrigeration—
Yearly Basis—
Ethylene glycol 96,000 lbs. C 3972 27 Jun 53
Ammonia anhydrous 18,000 lbs.

CONTRACTS AWARDED THROUGH JUNE 8

Office of the District Engineer, Corps of Engineers, Galveston District, P.O. Box 1229, Galveston, Texas
Installation of evaporative cooling and fire alarm systems, Laughlin AFB, Texas. (ENG-132)—Job, \$249,506.—Porter Plumbing & Heating Co., Austin, Texas.

Directorate of Procurement and Production, Sap. Saams, Kelly Air Force Base, Texas
IFB #41-608-53-588B Electric Furnace Our Reference Neg.—Item, \$27,927.—Westinghouse Electric Corp., 115 W. Travis St., San Antonio 5, Texas.

Yards and Docks Supply Office, U. S. Naval Construction Battalion Center, Port Hueneme, California
Repair parts F/ice machinery & air conditioning—50 items, \$65,062.—York Corp., 5051 Santa Fe Ave., Los Angeles 58, Calif.
Corps of Engineers, U.S. Army, North Atlantic Div., Philadelphia District, 121 N. Broad St., Philadelphia, Pa.
Construction of Warehouse, Cold Storage at McGuire Air Force Base, N. J.—\$163,500.—Daley & Co., Inc., 1427 Cornell Ave., Yonkers 9, N. Y.
Construction of Central Heating Plant and Distribution system at Dover Air Force Base, Del.—\$1,597,900.—Frederick Raff Co., P.O. Box 899, Hartford, Conn.

Quartermaster Market Center System, U. S. Army, 1819 W. Pershing Rd., Chicago 9, Illinois
Fountain, Drinking water, 53-334B—4,691 ea., \$81,107.—E.W. Mink & Associates, Inc., 117 N. Findley St., Dayton 3, Ohio.

New G-E Integral Motors Seen Ready by Late Fall

SCHENECTADY, N. Y.—General Electric has announced that it will build polyphase motors with the new frame standards recently approved by the National Electrical Manufacturers Association. The company estimates that its new 182 and 184 frame polyphase motor designs will be completed and samples available by late fall of this year.

Larger frames will be made available at later dates, and quantity production of the new motors will follow shortly after the availability of samples.

According to G-E engineers, the new motor frame assignments will allow better utilization of space within motor frames and result in greater horsepower per frame size, by taking advantage of better materials and advances in the art of motor design.

Performance characteristics such as torques, starting currents, and temperature rise will remain unchanged, the G-E engineers further indicated.

Westinghouse Breaks Ground For Modern Research Center

PITTSBURGH—Westinghouse Electric Corp. recently broke ground in Churchill Borough for an ultra-modern research center.

Dr. John A. Hutcheson, Westinghouse vice president and director of research, turned the first shovelful of earth at a ceremony held on a 70-acre plot about 10 miles east of downtown Pittsburgh's Golden Triangle. The new facilities are scheduled to be completed early in 1955.

To be housed in an "L"-shaped, three-story building, the center will be approximately one-third larger than the present laboratories and will provide room for future expansion.

In addition to laboratories and offices the structure will house a cafeteria capable of seating about 250 persons, an auditorium of similar size, and a large technical library—"one of the most completely equipped in the area."

Dr. Hutcheson said the design of the new lab "is such that we will be able to enlarge the working area of the scientist by simply rearranging interior walls and facilities."

The center will ultimately replace the present Westinghouse Research Laboratories located since 1916 in Forest Hills. Of the present staff there only a small number will remain behind when it comes time for "the big move."

BEWARE!

of losing business. Get big profits from fast-moving Howard Home Freezers. Modern double or single door upright, chest models and beverage coolers.

TERRITORIES FOR DEALERS, DISTRIBUTORS, and REPS—just a few left.

Howard REFRIGERATOR COMPANY, INC.

4745 Worth St., Phila., Pa.
Export Div.—250 Park Ave., New York, N.Y.

Drayer-Hanson Appoints Three Representatives

LOS ANGELES—Appointment of three new manufacturers' representatives was announced recently by Drayer-Hanson, Inc., manufacturer of commercial refrigeration and air conditioning equipment.

They are Mark Raymon of Portland, Ore., Harry Torch of Atlanta, Ga., and Mel A. Disney of Kansas City, Mo.

Raymon, who owns and operates Pacific Air Control, will handle Drayer-Hanson air conditioning equipment in the state of Oregon. He recently moved to larger business offices in the Fitzpatrick Bldg. at 917 S. W. Oak St.

Torch, of the Air-Rite Products Co. of Atlanta and Macon, will cover the Atlanta territory for Drayer-Hanson. Before becoming a manufacturer's representative, he was regional engineer for Chrysler Airtemp in the Atlanta region. He is a registered professional engineer in the state of Georgia and a member of the American Society of Refrigerating Engineers.

Disney, who formed the firm Disney & Carlson, manufacturers' representative, here a few years ago, will cover the eastern part of Kansas and the western part of Missouri.

Shortly before the end of World War II, Disney became associated with Servel, Inc., as sales engineer in Servel's air conditioning division. A short time later he moved to St. Louis where he established the air conditioning department of the Laclede Gas Co. Six years later he returned to Kansas City to form his own company.

SLANTS on Service

"Slants on Service" is a handy "package" devised by the NEWS for its busy readers.

Grounding Will Eliminate Most Radio Interference

Radio interference occasionally may crop up with heating equipment, usually resulting from an electric arc caused by switch contacts, motor brushes, or static electricity.

A separate circuit for the heating equipment is very important, and this circuit should be grounded at the point where it originates in the building and also at the heating equipment, points out the Service Information Division of White-Rodgers Electric Co.

"Any motor-driven unit, such as an oil burner, should be grounded," the company suggests. "A modern oil burner ignition transformer is usually grounded between the primary winding (power supply) and the secondary winding (high voltage). Should interference exist during the ignition period, a condenser or radio interference eliminator may have to be used.

"Radio supply companies can advise you regarding eliminators or condensers for most applications. The eliminator or condenser is installed across the line."

JUST ASK US!

Turn to "What's New" Page for useful information on new products.

A Shot in the Arm for Hot Weather Sales ... A Tonic for All-Year Business!

NEW FLEX UNIT
TRADE MARK REGISTERED
THE STANDARD BY WHICH OTHERS ARE JUDGED

Self-Contained
FRIGIDESSERT
Back Counter Display Case
48" x 17" x 24" high



A NATURAL! BACK IT AND WIN!

- **NEW**... Engineered for modern food service needs. Provides 11 sq. ft. of refrigerated shelf display under fluorescent lighting in 4 running feet of counter. Takes 12" pies.
- **SELF-CONTAINED**. No installation. Plugs into any 110V. lighting socket and refrigeration goes to work.
- Gleaming Stainless Steel inside and out.
- 3 adjustable-height wire shelves.
- Concealed full length fluorescent fixture.
- 5 year warranty on compressor.

FRIGIDESSERT

is just what you need to pep up your sales. Right now!

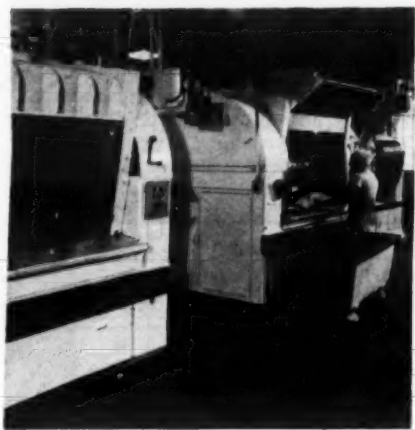
Write for BROCHURE R-52-3 fully describing our complete line of refrigeration equipment.

STAINLESS FOOD EQUIPMENT CO.
272 New Street Newark 3, New Jersey

REFRIGERATION

At Its Best!

WITH

DOLE
ICE-CEL
UNITS

RECENTLY INSTALLED AT

Keig Stevens Bakery

"THE HOME OF COLONIAL BREAD"

ROCKFORD, ILLINOIS

A DOLE ICE-CEL UNIT is employed here with an ammonia compressor hook-up to supply chilled water for the cooling heads on the dough mixers. In conjunction with a water cooling coil this unit keeps an even temperature in the fermentation room. . . . No water loss, all water being re-circulated.

WRITE FOR CATALOG B

DOLE REFRIGERATING COMPANY

5920 NORTH PULASKI ROAD
CHICAGO, ILLINOIS

103 Park Avenue, New York

In Canada: Dole Refrigerating Products, Ltd.
44 Elgin Street, Brantford, Ontario

'Newsweek' Article--

(Concluded from Page 1, Column 3)

The figures on "home systems" are almost identical with those published in a recent *Fortune* article.

The *Newsweek* tabulation on room unit manufacturers shows Fedders-Quigan on top with 345,000; Mitchell next with 225,000; York, 150,000; Sutton, 120,000; Carrier, 115,000; Frigidaire, 100,000.

Figures for eight other manufacturers are given in the article, which lumps 50,000 units to be produced by "Others."

The complete rundown on manufacturers' 1953 goals as published by *Newsweek* is shown in the accompanying table.

Predictions of the industry's future are cited extensively in the report, including estimates by Cloud Wampler, president of Carrier, that 1953 retail sales of air conditioning will approach \$2 billion; \$5 billion by 1960.

Don V. Petrone, executive vice president of Typhoon, is quoted as saying, "home air conditioning will be in the 'demand' class by 1955."

In discussing home air conditioning, *Newsweek* pays this tribute:

"The industry is making astonishingly rapid progress toward year-round air conditioning systems representing 10 to 12% of the total cost of new home, even in the \$10,000 class."

The article concludes:

"On all sides, air conditioning has a market more receptive than ever before: in room air conditioners (greatly improved streamlined models priced from about \$200 up); in commercial and industrial air conditioning; in packaged units for shops and offices; in air conditioners for automobiles, trains, planes, buses, and finally, in the great residential market (cooling and cooling-heating units)."

"For employers, all this means more efficiency (tests show that heat causes more accidents, produces less and poorer work, and increases absenteeism). For most Americans, it means a cool brow, a dry shirt, and a calm temper and, in the opinion of Medical Research Institute of Chicago, better health (tests show that merely moving about in 95° heat puts as much strain on the heart as heavy labor)."

ASHVE Meeting--

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the Saturday and Sunday prior to the official opening of the meeting Monday morning, June 29.

Reg. F. Taylor, president of the society will preside at the meeting.

The Monday morning session will consist of three papers, "Performance of a Forced Draft Cooling Tower," by B. H. Spurlock, Jr.; "Effect of Relative Humidity on Heat Loss of Men Exposed to Environments of 80°, 76°, and 72° F.," by T. Inouye, F. K. Hick, M.D., S. E. Telser, and R. W. Keeton, M.D.; and "Experimental Approaches to the Study of Noise Transmission in Piping Systems," by W. L. Rogers.

Three papers will be presented at Tuesday's morning session. They are: "Electrical Analog Application to the Heat Pump Process," by C. F. Kavan; "Design and Performance of a Residential Earth Heat Pump," by Merl Baker; and "Moisture Movement in Soils Due to Temperature Difference," by W. A. Hadley and R. Eisenstadt.

The Wednesday morning session will consist of "Design Data for Slat-Type Sun Shades for Use in Load Estimating," by G. V. Parmelee and D. J. Vild; "Automatic Permeance Testing by the Permeometer," by F. A. Joy and A. W. Sherdon; "Thermal Performance of Frame Walls, Part II—Air Spaces Blocked at Mid-Height," by G. O. Handegord and N. B. Hutcheon; and "Development of Thermal Conductivity Probe," by F. C. Hooper and S. C. Chang.

The technical papers to be given at the last session on Wednesday afternoon are: "Performance of Warm Air Perimeter-Loop and Radial Systems in a Residence," by H. T. Gilkey, R. W. Roose, and M. E. Childs; "Heat Exchanges in a Floor Panel Heated Room," by L. F. Schutrum, C. M. Humphreys, and G. V. Parmelee; "Further Studies of Thermal Characteristics," by L. F. Schutrum and C. M. Humphreys; and "Heat Flow Analysis in Panel Heating or Cooling Sections—Case II: Floor Slab on Earth with Uniformly Spaced Pipes at the Slab-Earth Interface," by H. B. Nottage, C. V. Franks, and L. E. Hulbert.

Carrier Meetings Will
Cover Air Conditioning

HOUSTON, Texas—First of a series of three meetings designed to give builders, building contractors, architects, and any others interested in residential air conditioning a concentrated story on the subject will be held under the sponsorship of Carrier Corp. Tuesday night, June 16 at the Houston club here.

Other meetings will be held June 18 at the Adolphus hotel in Dallas, and June 22 at the Gunter hotel in San Antonio.

William A. Lake, product promotion manager for Carrier, who has spearheaded the firm's residential air conditioning program, will be the principal speaker at the meetings. Discussions will cover all phases of the subject, including design of homes to be equipped with air conditioning, types of residential units, and promotion of air conditioned homes to the public.

Straus-Frank Co., Carrier-Bock, and Bell-Kotzebue.

Westinghouse Extends
Appliance Price Protection

MANSFIELD, Ohio—Price protection on Westinghouse refrigerators and ranges has been extended to Sept. 30, the Westinghouse Electric Appliance Div. advised distributors recently.

Protection on the Laundromat and clothes dryer current models was extended to Dec. 31. It covers both dealer and distributor inventories.

Expect 15,000 at NARGUS
Convention In Chicago

CHICAGO—Approximately 15,000 persons are expected to attend the 1953 convention and exhibition of the National Association of Retail Grocers which started at the Navy Pier here June 14 and will continue through June 18.

Considerable refrigeration equipment will be on display at the show, which numbers 428 exhibit spaces featuring a wide variety of food and grocery items in addition to fixtures and other equipment.

Convention activities will include panel discussions devoted to such topics as produce pre-packaging, profitable meat merchandising, and store modernization and expansion.

Detroit Water Curbs--

(Concluded from Page 1, Column 2)

outside temperature is 90° F. or above by official U. S. Weather Bureau determinations. Provided this shall not apply to hospitals or similar institutions, nor shall it apply on Sundays. Exceptions to this rule may be made by the Board of Water Commissioners for good and sufficient reasons to be shown by the applicant.

Lawn sprinkling is prohibited between 2 p.m. and 9 p.m., Monday through Friday. Last year, watering of lawns was banned between 10 a.m. and 9 p.m. The board said the relaxation was possible because two new booster stations will be put into operation this summer. The rules are in effect from June 10 to Sept. 5.

NARDA Meeting--

(Concluded from Page 1, Column 3)

sion. NARDA business matters will be taken up during this period.

The morning's main session will be devoted entirely to selling—selling door-to-door, on the sales floor, by phone, and with demonstration. A feature of this session will be the keynote address by a prominent industry personality on "How To Inspire a Sales Force."

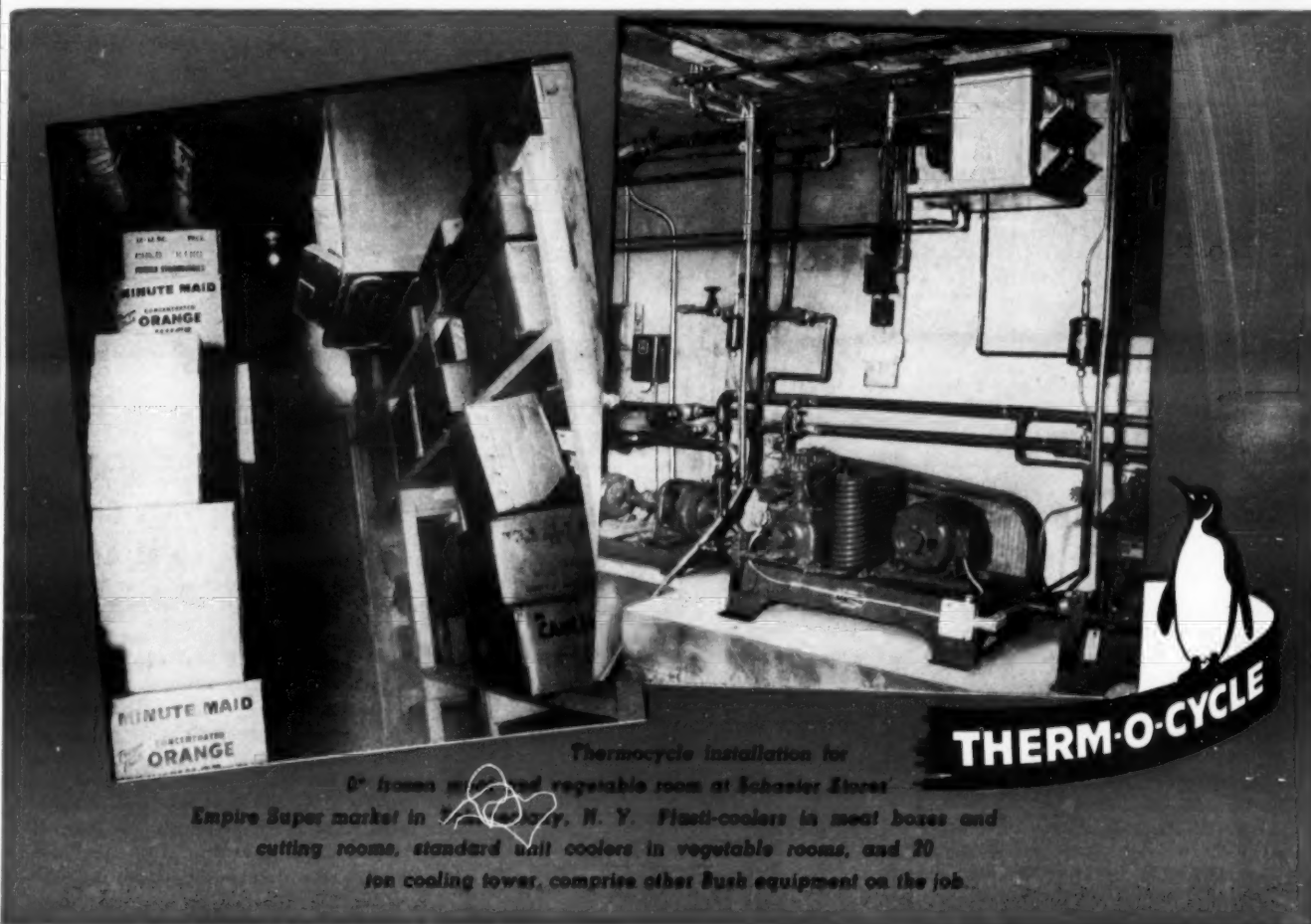
Fred Kaiser, vice president of Detroit-Michigan Stove Co., will give an inspirational talk during the noon luncheon.

In the afternoon, the dealers will hear talks on appliance merchandising. Speakers are to review the trade-in problem and offer advice on building freezer, laundry equipment, and traffic appliance volume. In addition, *Fortune's* film, "The Salesman," will be shown.

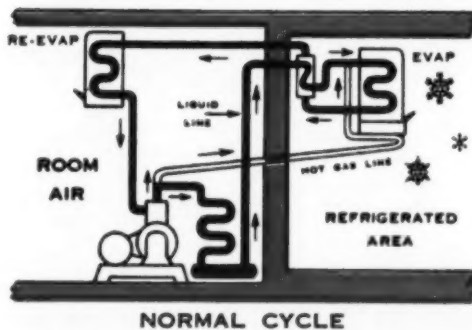
The group's semi-annual banquet is set for Monday night.

Al Robertson, Oklahoma City dealer, will talk at the 7:30 a.m. breakfast session Tuesday morning, after which a management session will be held. The latter will cover dealer finance and financing, use of credit to increase sales, rentals, and the role of the distributor and distributor salesman.

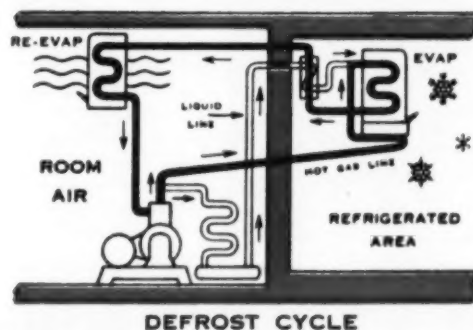
Tuesday afternoon has been set aside for a discussion of television. Speakers will include Frank Freimann, president of Magnavox; Joe Elliott, vice president in charge of consumer products, RCA Victor; Mort Farr, Upper Darby, Pa., appliance dealer and former NARDA president, and others.



ROOM AIR...TO DEFROST



NORMAL CYCLE



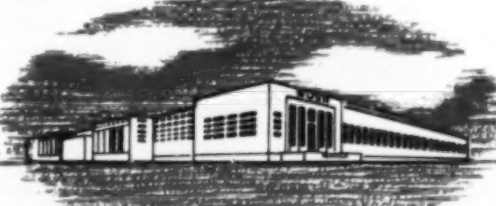
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